DRAFT
INITIAL STUDY

CITY OF MORGAN HILL
LITTLE LLAGAS CREEK PARK
MORGAN HILL, CALIFORNIA

PREPARED FOR
CITY OF MORGAN HILL
COMMUNITY SERVICES DEPARTMENT AND
PUBLIC WORKS DEPARTMENT
17575 PEAK AVENUE
MORGAN HILL, CA 95037

OCTOBER 2016

PREPARED BY
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CITY OF MORGAN HILL
DEVELOPMENT SERVICES CENTER DEPARTMENT
ENVIRONMENTAL CHECKLIST FORM

PROJECT INFORMATION

PROJECT TITLE:
Little Llagas Creek Park

PROJECT LOCATION:
West of West Third Street and Monterey Road Intersection

LEAD AGENCY NAME AND ADDRESS:
City of Morgan Hill
Public Works Department
17575 Peak Avenue
Morgan Hill, CA 95037

CONTACT PERSON AND PHONE NUMBER:
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Chris Ghione, Community Services Director
408/778-6480
(email: Yat.Cho@morganhill.ca.gov
Chris.Ghione@morganhill.ca.gov)

PROPERTY OWNER:
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

PROJECT SPONSOR:
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037

GENERAL PLAN DESIGNATION:
Open Space

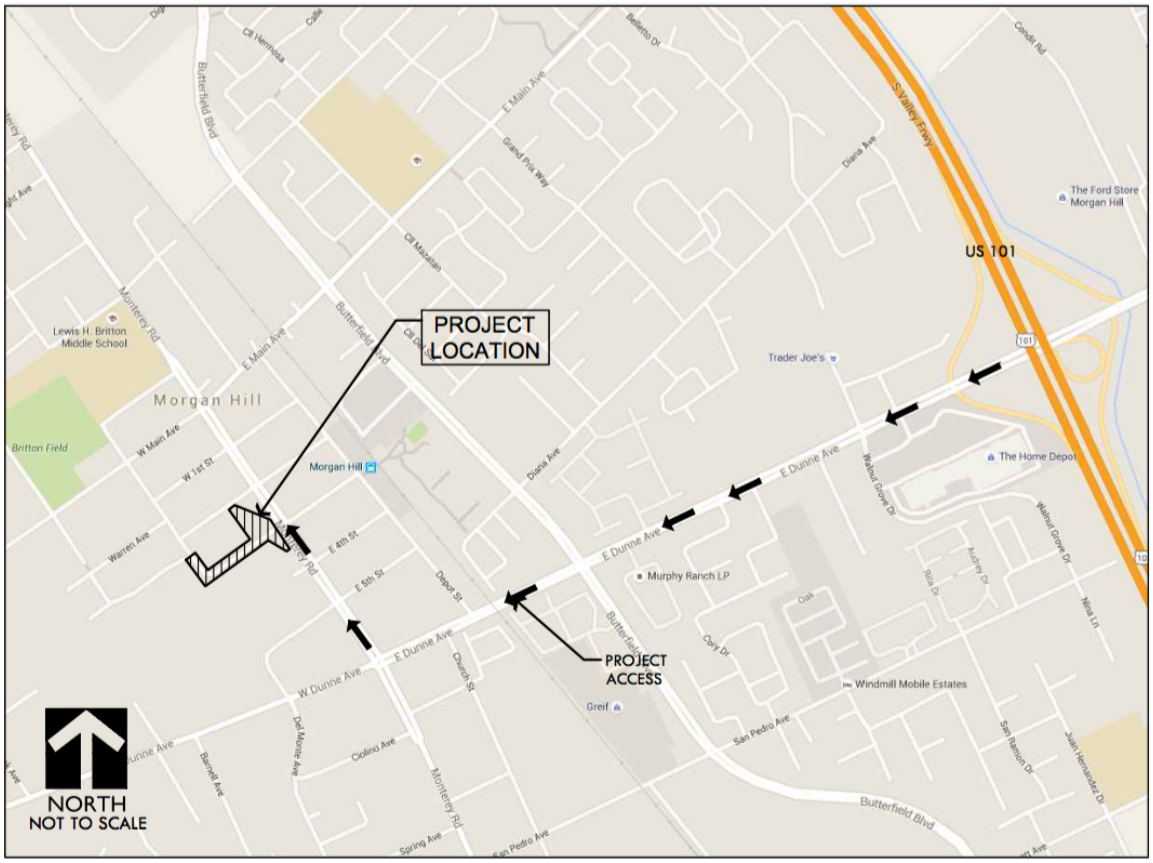
ZONING:
R2 3,500 - Medium Density Residential District

PROJECT DESCRIPTION

Existing Setting. The 1.7-acre project site is located approximately 200 feet west of the intersection of West Third Street and Monterey Road, within downtown Morgan Hill. **Figure 1** shows the location of the project site. The proposed park site consists of three parcels (APNs 767-07-065, 767-07-042, and 767-08-003) comprising approximately one acre that has been historically used for drainage and open space purposes. Two of the parcels, addressed 30 West Third Street (APN 767-08-003; 0.11 acres) and immediately west of 60 West Second Street (APN 767-07-042; 0.19 acres) are owned by the Santa Clara Valley Water District (SCVWD) and include the channel and embankments of West Little Llagas Creek. One of the two parcels adjoins the south side of West Second Street and abuts the northern boundary of the City's 0.7-acre parcel fronting on West Third Street. Together, these two parcels comprise the main portion of the project site and provide trail access from West Second Street to West Third Street. The second SCVWD parcel (APN 767-08-003) is located south of West Third Street, on the east side of Little Llagas Creek.

In addition to the main park site, the proposed project would involve the replacement of a one-lane vehicle bridge on West Third Street across West Little Llagas Creek and portions of West Third Street and Del Monte Avenue. West Third Street extends 435 feet to the southwest of the bridge and connects to

FIGURE 1: PROJECT LOCATION



Source: Verde Design, *Construction Drawings for Little Llagas Creek Park, 60% Review Submittal*, June 9, 2016.

Del Monte Avenue, which extends approximately 1,000 feet to the northwest and intersects with West Main Avenue. Aside from the one-lane bridge, West Third Street and Del Monte Avenue are two-lane local residential streets. There are no curbs or gutters on West Third Street from the one-lane bridge to Del Monte Avenue and on Del Monte Avenue from West Third Street to its intersection with Nob Hill Terrace, approximately 200 feet to the northwest of West Third Street. The right-of-way for these two street segments encompasses approximately 0.7 acres (30,373 s.f.).

The park site is nearly level, with a slight slope ranging in elevation from approximately 352 feet in the southwestern part of the site to 344 feet above mean sea level in the eastern corners of the project site. The majority of the project site is primarily covered with native trees and ruderal vegetation, with trees occurring on both sides of Little Llagas Creek and along the property perimeters. The central portion of the main park site north of West Third Street is an open field covered with non-native grasses. The northern SCVWD parcel is generally bare earth with grasses and forbs growing on the creek banks and channel. The SCVWD parcel south of West Third Street is similarly bare earth with trees along its perimeters on the creek bank and West Third Street.

The project site is designated Open Space on the Morgan Hill 2035 General Plan Land Use Map. Zoning for the project site is currently R-2 3,500, but is proposed to be changed to the Open Space Zoning District as part of the City's comprehensive Zoning Code Update to be consistent with the recently adopted General Plan. **Figures 2 and 3** indicate the General Plan land use designations and zoning for the site and vicinity, respectively.

Regional access to the project site is available from State Highway 101, located approximately 1.1 miles east of the project site, and its East Dunne Avenue interchange. West Third and West Second Streets adjoin the project site and provide local access to the property. Access to the site is available from West Third Street and West Second Street. **Figure 4** presents an aerial view of the project site and surrounding project area and the Site Development Plan is shown in **Figure 5.**

Proposed Access Improvements. The City proposes to construct the following access improvements in the West Third Street right-of-way as part of the project:

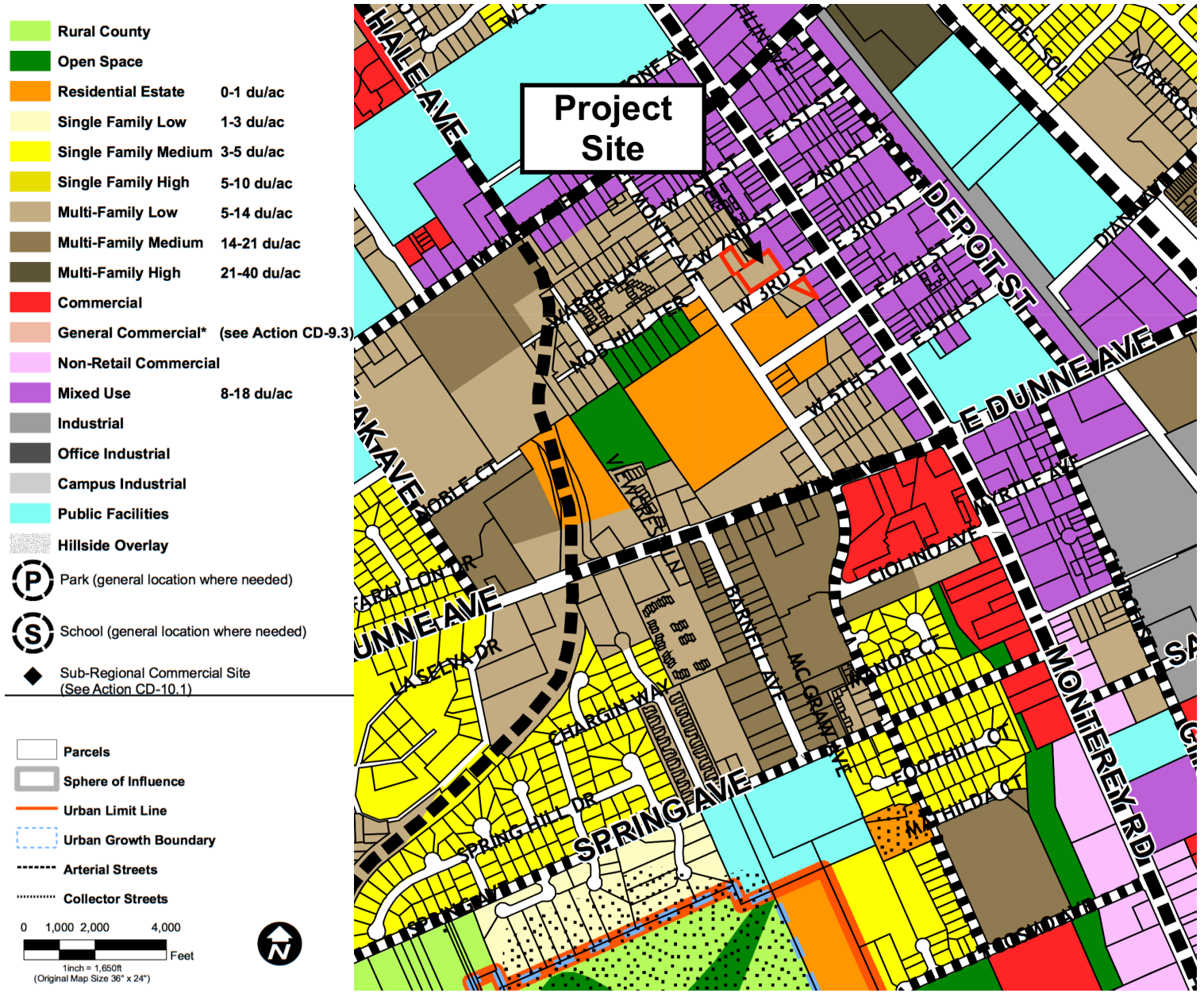
- Demolition of signs, utility and light poles, curbs, and fencing;
- Replacement of the one-lane bridge with a two-lane bridge meeting City roadway standards;
- Repaving of West Third Street from the new bridge to Del Monte Avenue, and repaving of Del Monte Avenue from West Third Street to Nob Hill Terrace;
- Installation of a paved parking area for the proposed Little Llagas Creek Park; and
- Construction of asphalt pedestrian path and concrete curb separator from roadway along West Third Street and Del Monte Avenue along pathway and parking striping, and bike racks.

The proposed access improvements would facilitate better access to the amenities that would be provided with the proposed development of recreational improvements for Little Llagas Creek Park.

Proposed Recreational Development. The City is proposing the following improvements on the one-acre park area of the project site:

- Retention and protection of lighting pole, utility, test well, fencing, and road and utility improvements west of the bridge;
- Clearing of non-native vegetation and grading for installation of activity appropriate surfacing such as resilient surfacing, decomposed granite, mulch, and asphalt and concrete paving;
- Installation of various types of play equipment, benches, signage, and picnic tables;

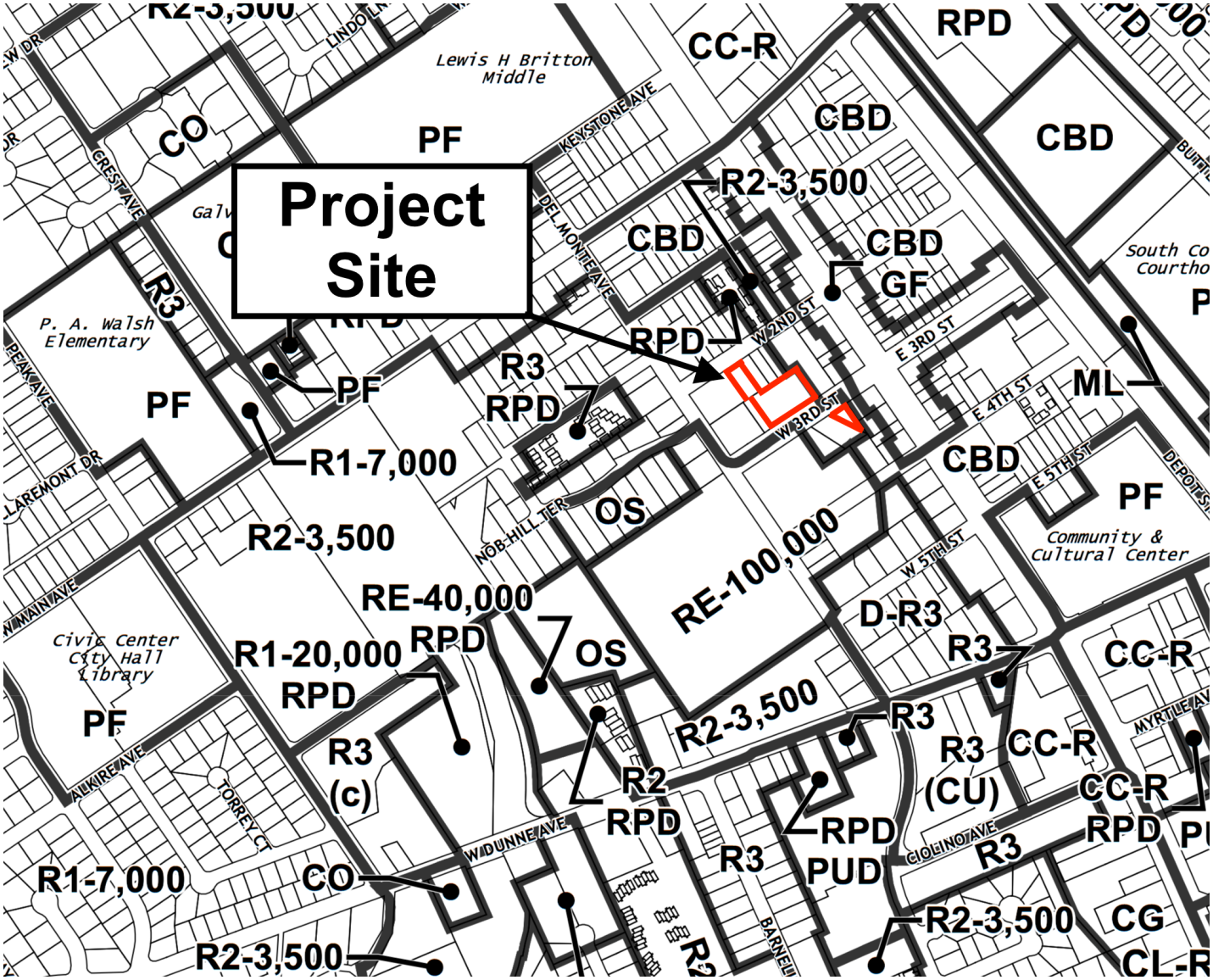
FIGURE 2: GENERAL PLAN LAND USE DESIGNATIONS



LITTLE LLAGAS CREEK PARK

Source: City of Morgan Hill, *General Plan Land Use Diagram,* Adopted July 25, 2001, Revised February 29, 2012.

FIGURE 3: ZONING FOR PROJECT SITE AND VICINITY



RE	Residential Estate District
R1	Single-Family District
R2	Medium-Density Residential District
R3	Medium-Density Residential District
R4	High Density Residential District
RPD	Residential Planned Development Overlay District
CBD	Central Business District
CN	Neighborhood Commercial District
CG	General Commercial District
CC-R	Central Commercial, Residential District
D-	Downtown Specific Plan
GF	Downtown Ground Floor Overlay District
CL-R	Light Commercial Residential District
CS	Service Commercial District
CO	Administrative Office District
CU	Commercial Use Overlay
HC	Highway Commercial District
PUD	Planned Unit Development District
MG	General Industrial District
ML	Light Industrial District
MO	Office Industrial District
MC	Campus Industrial District
PF	Public Facilities District
(c)	Conditional Zoning
( )	Overlay District

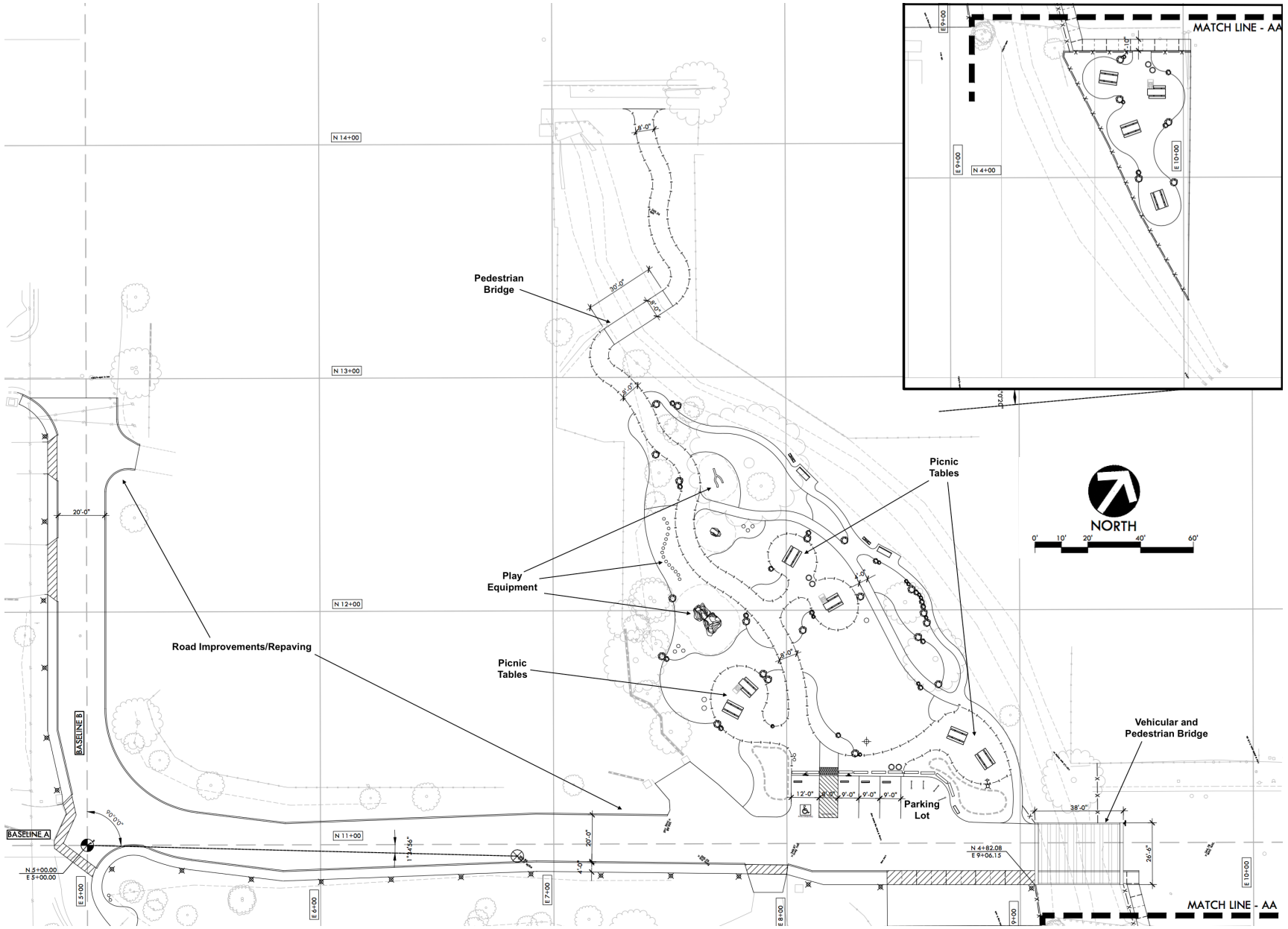
Source: City of Morgan Hill, *Zoning,* February 29, 2012.

FIGURE 4: AERIAL VIEW OF PROJECT SITE

LITTLE LLAGAS CREEK PARK

Source: Google Earth (2016)

FIGURE 5: SITE DEVELOPMENT PLAN



LITTLE LLAGAS CREEK PARK

Source: Verde Design, *Construction Drawings for Little Llagas Creek Park, 60% Review Submittal,* June 9, 2016.

- Installation of a pedestrian bridge across West Little Llagas Creek; and
- Provision of a kiosk with city information, a security camera, and public art.

The proposed project involves the construction and installation of recreational facilities improvements on an open space site and roadway improvements to segments of West Third Street and Del Monte Avenue. As shown in Figure 5, the City plans to provide passive recreation facilities on three parcels that comprise the proposed park site. Two of the parcels consist of 0.89 acres and adjoin West Little Llagas Creek between West Second Street and West Third Street. A third 0.11-acre parcel south of West Third Street and immediately adjoining the east side of West Little Llagas Creek would also be developed for recreational purposes.

The park site would require vegetation removal (grubbing) and minor grading as part of site preparation for the construction of paths, walkways, play areas, and placement of recreational equipment. Vegetation removal and grading on the parcels north of West Third Street would be limited to non-native grasses and forbs on the level, central part of the property that is west of West Little Llagas Creek south of a proposed pedestrian bridge. No trees would be removed from this part of the project site, and site preparation activities including grading would be limited to areas set back from the top of the creek's banks. Four trees would be removed from the park parcel fronting the south side of West Third Street.

The principal features of the park development would encompass: 1) the construction of a trail, paths, and walkways; 2) the installation of pedestrian bridge across West Little Llagas Creek on the northern parcel adjoining West Second Street; 3) installation of six picnic tables in the main park area and four picnic tables on the parcel south of West Third Street; 4) installation of various play equipment such as climbing rocks, balance stumps and beam, and mushroom steps; and 5) benches, lighting, security camera, and water fountain. The trail and walkways would be covered with decomposed granite and mulch, while all play areas would have resilient surfacing for visitor safety. The park improvements would not include restroom facilities.

In addition to the park improvements, the project proposes to repave portions of West Third Street and Del Monte Avenue, and replace the West Third Street bridge across West Little Llagas Creek. Project plans specify the removal of the one-lane bridge and replacement with a bridge providing one vehicle land and one pedestrian lane. Existing asphalt paving on West Third Street from immediately east of the bridge to Del Monte Avenue (435-ft. length) would be removed, along with gravel in the parking area of the project site. The asphalt paving on Del Monte Avenue from its intersections with West Third Street to Nob Hill Terrace would also be removed. West Third Street and Del Monte Avenue would be repaved and include a new asphalt pedestrian walkway and concrete curb along the south and west sides of West Third Street and Del Monte Avenue, respectively. The new asphalt paving at the end of West Third Street would extend to the existing driveway providing access to the Nob Hill Water Reservoir site at this intersection. The reconstruction of these streets would include standard overhead lighting.

Proposed improvements on West Third Street would extend to the existing park parking area. The removed parking lot gravel would be replaced with asphalt paving, striping for a drop-off zone. The new parking lot would include bike racks.

The 0.11-acre park parcel adjoining the south side of West Third Street would be developed with decomposed granite surfacing and four picnic tables. Decorative rocks, post fencing, drinking fountain, display board, and trash and recycling receptacles would also be installed in this area. Four trees along West Third Street would be removed, providing greater visibility of this site and enhanced public safety for users of the park.

The proposed project would be setback from West Little Llagas Creek and no modifications are proposed for the creek banks or channel. However, routine park maintenance would be extended to the stream channel to ensure a natural setting would be retained in the park.

SURROUNDING LAND USES

The proposed park project would be developed on a one-acre parcel that is located in the Downtown area of Morgan Hill and is surrounded by urban development. Existing residential uses immediately surround the project site, along with commercial uses to the east on West Second Street and to the west on Monterey Road.

Commercial uses serving the site occur on Monterey Road and West Dunne Avenue near the site. The Morgan Hill Caltrain station is located on Depot Street, approximately 0.2 mile east of the project site. Other public recreational facilities in the project vicinity include: Morgan Hill Community and Cultural Center, approximately 700 feet southeast of the site, the Morgan Hill Community Garden approximately 0.2 mile northeast of the site, and Britton Field and Galvan Park facilities 0.2 mile northwest of the project site, and Morgan Hill Community Park about 0.5 mile south of the site.

OTHER AGENCIES WHOSE APPROVAL IS REQUIRED

In addition to the City of Morgan Hill, lead agency for the proposed project, responsible agencies having discretionary approval or jurisdiction by law over natural resources affected by the project are listed as follows: None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

☐ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gases	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Yat Cho, Associate Engineer

10/28/16
Date

EVALUATION OF ENVIRONMENTAL IMPACTS

Issues:

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

1a. Scenic Vistas

The 1.7-acre project site is located within downtown Morgan Hill and consists of three parcels comprising approximately one acre that has been historically used for drainage and open space purposes. Additionally, the proposed project area includes parts of adjoining West Third Street and connecting Del Monte Avenue. The right-of-way for these two street segments encompasses approximately 0.7 acres. Views of the project site and adjoining properties are shown in **Figures 6 through 8**, respectively.

Potentially viewable scenic vistas are limited in the vicinity of the project site. One such vista view is available to drivers, bicyclists, and pedestrians eastbound on West Third Street after turning from Del Monte Avenue. Travel southward on Del Monte Avenue rises toward Nob Hill and descends travelling eastward on West Third Street from its intersection with Del Monte Avenue. Due to the site vicinity's distance from the Diablo Range approximately five miles to the east, potential views of scenic vistas are limited to low ridgelines that occur on the distant horizon. These ridgelines constitute a small component of views that are available to residents and visitors in the project area. Eastward views along West Third Street are screened and filtered by mature native and landscape trees on both sides of the street.

The proposed park site is generally not visible until the viewer reaches the lower portion of West Third Street closer to Monterey Road and the downtown area. Due to the change in elevation of the observer travelling east on West Third Street, the scenic vista views are obscured from West Third Street near the proposed park site. Residential properties to the east and above the proposed park site include extensive mature native and landscape tree plantings that filter distant eastward views of the Diablo Range ridgeline.

The proposed project design would retain the park site's open space and introduce recreational equipment and passive recreational uses to the park site. Trees on the main park site would be preserved and protected. The proposed park modifications would be unobtrusive and have no effects on potentially viewable scenic vistas. Consequently, the proposed project would have no significant effects on scenic vista resources.

1b. Scenic Resources Within a State Scenic Highway

There are no state-designated scenic highways in the project vicinity and, therefore, the project would not affect scenic resources within a state scenic highway.

FIGURE 6: VIEWS OF THE PARK FROM WEST THIRD STREET

A. VIEW OF PARK SITE NORTH FROM PARKING AREA ON WEST THIRD STREET

B. VIEW OF PARK SITE GRASSLAND AND RIPARIAN ZONE

Source: Geier & Geier Consulting, Inc. (2016)

FIGURE 7: VIEWS OF THE PARK SITE AT WEST SECOND STREET

A. VIEW OF PARK SITE AND ADJOINING PROPERTIES FROM WEST SECOND STREET

B. VIEW OF PARK SITE LOOKING TOWARD WEST SECOND STREET

Source: Geier & Geier Consulting, Inc. (2016)

FIGURE 8: VIEWS OF ADJOINING PROPERTIES

A. VIEW FROM WEST SECOND STREET OF RESIDENTIAL PROPERTY WEST OF PARK SITE

B. VIEW OF COMMERCIAL PROPERTY LOOKING EAST FROM PICNIC AREA SOUTH OF WEST THIRD STREET

Source: Geier & Geier Consulting, Inc. (2016)

1c. Visual Character

The visual quality and character of the project site is defined by its current use for open space purposes, while the visual character of the project area setting is formed by the downtown residential and commercial uses surrounding the project site. The Nob Hill open space to the south of the project area contributes to the semi-rural character of the project vicinity. Private views of the project site that define its visual character are primarily available from side and rear yards of residences on West Second and West Third streets adjoining the park site. Public views of the project site are available to travelers on West Second and West Third streets, west of Monterey Road. Figures 6 and 7 present views of the project site from these two adjoining streets.

The development of the open space site passive recreational uses would have a negligible effect on the character of the project site. With the exception of four street trees to be removed on the south side of West Third Street, the project proposal entails the preservation of all trees on the main park site to retain the natural character of the property. No modifications of West Little Llagas Creek are proposed as part of the project and the proposed trail and walkway configuration would provide signage with riparian information that would benefit visitors at the park. Structures on the park site would be limited to play equipment, picnic tables, and lighting poles. Consequently, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings.

1d. Light or Glare

The project site currently produces lighting effects through existing lighting at the park site. The road improvements proposed for West Third Street and Del Monte Avenue include overhead street lights along the south and west sides of these two streets, respectively. The proposed exterior lighting for roadway improvements will need to conform to the design standards stipulated by City Building Code and City of Morgan Hill Design Standards, which will ensure that project lighting would not adversely affect adjacent properties. As a result, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Agriculture and Forestry Resources – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Dept. of Forestry and Fire Protection regarding the state's inventory of forest land, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

2a, 2b, 2c, 2d, 2e. Farmland, Agricultural, and Forestry Uses

The project site is designated Open Space on the Morgan Hill 2035 General Plan Land Use Map. Zoning for the project site is currently R-2 3,500 Medium Density Residential, but is proposed to be changed to the Open Space Zoning District as part of the City's comprehensive Zoning Code Update to be consistent with the recently adopted General Plan.

The one-acre park site presently includes an open channel section of West Little Llagas Creek, various large oak and other native trees. The project site is surrounded by residential and commercial properties in downtown Morgan Hill, constraining agricultural use of the site. Given the small size of this parcel, current zoning, and the extensive urban development surrounding the proposed park site, project development would have a less than significant effect on the conversion of the site to a non-agricultural use.

It should be noted that the City formulated agricultural policies and prepared an implementation program to guide the conservation of agricultural lands within the City's Sphere of Influence area.[1] The City has designated agricultural lands in the Southeast Quadrant of the community for conservation and continued agricultural use.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality - Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐

[1] City of Morgan Hill, 2011. *Morgan Hill Agricultural Policies and Implementation Program*. December 22.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

3a. Air Quality Planning

The San Francisco Bay Area Air Basin (SFBAAB) is classified by the Bay Area Air Quality Management District (BAAQMD) as non-attainment for ozone and inhalable particulates (PM_{10}). To address these exceedances, BAAQMD, in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), prepared the *Bay Area 2005 Ozone Strategy (BAOS)* in September 2005 and *Particulate Matter Implementation Schedule (PMIS)* in November 2005. The PMIS discusses how BAAQMD implements the California Air Resources Board's 103 particulate matter control measures. The most recently adopted air quality plan in the Basin is the *2010 Bay Area Clean Air Plan* (*CAP*). This *CAP* outlines how the SFBAAB will attain air quality standards, reduce population exposure and protect public health, and reduce greenhouse gas (GHG) emissions.

The consistency of the proposed project with the most recently adopted regional air quality plan, the *CAP,* is determined by comparing the project's consistency with pertinent land use and transportation control measures contained in the *CAP*. Pertinent measures relate to evaluating impacts according to the BAAQMD's CEQA Guidelines (impact evaluation presented below).

The project's construction-related and operational emissions were determined to not exceed the BAAQMD's CEQA significance thresholds for criteria air pollutants and diesel particulate matter. Therefore, the proposed project's emissions would be consistent with BAAQMD's *CAP* (the most recently adopted regional air quality plan). The consistency of the proposed project with the most recently adopted regional air quality plan, the *CAP,* is also determined by comparing the project's consistency with the Morgan Hill 2035 General Plan. Since the *CAP* is based on ABAG population projections that are based on the City's General Plan in effect at the time the *CAP* was approved, consistency of the project with the General Plan would indicate consistency with the *CAP*. Although the proposed park would not generate new population, the project is considered to be consistent with the *CAP* since it would be consistent with the Morgan Hill 2035 General Plan, a less than significant impact.

3b. Air Quality Standards

Regulatory and Planning Framework. BAAQMD is responsible for attaining and/or maintaining air quality in the SFBAAB within Federal and State air quality standards. Specifically, BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the Basin and to develop and implement strategies to attain the applicable Federal and State standards. In June 2010, BAAQMD adopted CEQA thresholds of significance (Thresholds) and updated its CEQA Air Quality Guidelines, which provides guidance for assessing air quality impacts under CEQA. However, on March 5, 2012, the Alameda

County Superior Court issued a judgment finding that BAAQMD had failed to comply with CEQA when it adopted the Thresholds. The court issued a writ of mandate ordering BAAQMD to set aside the Thresholds and cease dissemination of them until BAAQMD had complied with CEQA. On August 13, 2013, the California Court of Appeal reversed the Alameda County Superior Court judgment that invalidated BAAQMD's Thresholds. The Court directed that the Superior Court vacate the writ of mandate issued in March 2012, ordering BAAQMD to set aside its June 2010 resolution (Res. #2010-06) "Adopting Thresholds for Use in Determining the Significance of Projects' Environmental Effects Under the California Environmental Quality Act." Although the California Supreme Court has granted review in the litigation to hear one particular issue of law, the granting of review does not alter the result in the Court of Appeal, though the latter court's decision is no longer a published, citable precedent. And the legal cloud created by the trial court decision no longer exists. Local agencies such as the City of Morgan Hill may rely on the BAAQMD Thresholds.

Significance Thresholds. Exercising its own discretion as lead agency and similar to multiple other San Francisco Bay Area jurisdictions, City staff has decided to rely on the thresholds within the *Options and Justification Report* (dated October 2009) prepared by BAAQMD.[2] The BAAQMD *Options and Justification Report* establishes thresholds based on substantial evidence and are consistent with the thresholds outlined within the 2010/2011 BAAQMD CEQA Air Quality Guidelines. The thresholds have been developed by BAAQMD in order to attain state and national ambient air quality standards. Therefore, projects below these thresholds would not violate an air quality standard and would not contribute substantially to an existing or projected air quality violation:

- NO_X and ROG: 54 pounds/day
- PM_{10}: 82 pounds/day
- $PM_{2.5}$: 54 pounds/day

In addition to establishing the above significance thresholds for criteria pollutant emissions, BAAQMD, in its *Options and Justification Report,* also recommended the following quantitative thresholds to determine the significance of construction-related and operational emissions of toxic air contaminants from individual project and cumulative sources on cancer and non-cancer health risks:

- Increased cancer risk of greater than 10.0 in one million for individual projects and greater than 100 in one million (from all local sources) for cumulative sources;
- Increased non-cancer risk of greater than 1.0 Hazard Index (Chronic or Acute) for individual projects and greater than10.0 Hazard Index (from all local sources) for cumulative sources; and
- Ambient $PM_{2.5}$ increase: greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average for individual projects and greater than 0.8 $\mu g/m^3$ annual average (from all local sources) for cumulative sources.

Project Emissions. The proposed project includes minor grubbing and grading, installation of proposed park facilities, and repaving of the adjacent West Third Street and nearby Del Monte Avenue. Such activities typically result in emissions of particulate matter (PM) in the form of dust (fugitive dust) and ozone precursors from vehicle/equipment exhaust (e.g., vehicle tailpipe emissions). ROGs (reactive organic gases, also ozone precursors) are also emitted from asphalt paving. Construction of proposed park facilities and repaving of adjacent streets would involve limited operation of construction equipment and associated temporary increases in fugitive dust and criteria pollutants during the project's 4-month construction duration. Criteria pollutant emissions associated with operation of proposed park facilities would be limited to the small increase in traffic (mobile source emissions from up to 60 trips per day) that

[2] Bay Area Air Quality Management District, 2009. *Revised Draft Options and Justification Report*. October. Available online at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx.

could be generated by the project.[3] The project's construction-related and operational emissions are estimated and compared to the above significance thresholds in **Table 1**. As shown in this table, the project's construction-related and operational criteria air pollutant emissions would not exceed the BAAQMD significance thresholds for criteria pollutants, a less than significant impact. However, BAAQMD recommends that all Basic Construction Mitigation Measures, which include dust-control measures, be implemented for all construction projects, whether or not construction-related emissions exceed these significance thresholds. Therefore, the project's construction-related and operational increases in criteria pollutant emissions would be less than significant with implementation of Mitigation Measure AQ-1. In addition, the City would require, as a condition of approval, implementation of a dust control plan (Standard Measure SM-AQ-1) to minimize impacts on nearby sensitive receptors.

TABLE 1

PROJECT-RELATED CONSTRUCTION AND OPERATIONAL CRITERIA POLLUTANT EMISSIONS

	Average Daily Emissions (pounds/day)					
Project Activity	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10} (Total)**	**$PM_{2.5}$ (Total)**
Project Construction (Off-Road Equipment Emissions[a]) – 2017 – No Mitigation	1.3	12.7	9.9	0.0	1.9	1.1
Significance Thresholds	54	54	-	-	82	54
Exceeds Significance Thresholds?	No	No	-	-	No	No
Project Operation – Mobile Source Emissions	<1	<1	<1	0	<1	<1
Significance Thresholds	54	54	-	-	82	54
Exceeds Significance Thresholds?	No	No	-[b]	-[c]	No	No
	Average Annual Emissions (tons/year)					
Project Activity	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10 (Total)**	**PM2.5 (Total)**
Project Construction (Off-Road Equipment Emissions[a]) – 2016 – No Mitigation	0.07	0.67	0.53	0.00	0.06	0.05
Significance Thresholds	10	10	-	-	15	10
Exceeds Significance Thresholds?	No	No	-	-[cs]	No	No
Project Operation – Mobile Source Emissions	<1	<1	<1	0	<1	<1
Significance Thresholds	10	10	-	-	15	10
Exceeds Significance Thresholds?	No	No	-[b]	-[c]	No	No

NOTES: ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; exhaust PM_{10} = particulate matter less than 10 microns; exhaust $PM_{2.5}$ = particulate matter less than 2.5 microns.

[a] Construction assumptions: demolition would occur over 10 days using 1 concrete saw, 1 dozer, and 2 loaders/backhoes; site prep would occur over 1 day using 1 grader and 1 loader/backhoe; grading would occur over 2 days using 1 concrete saw, 1 dozer, and 2 loaders/backhoes; construction of park facilities would occur over 100 work days using 1 crane, 1 forklift, and 2 loaders/backhoes; and street paving would occur over 5 work days using 4 mixers, 1 paver, 1 roller, and 1 loader/backhoe.

[b] CO: If localized carbon monoxide estimated emissions exceed 550 pounds/day, more detailed analysis is required. Therefore, emissions below this threshold indicate that CO emissions would be less than significant.

[c] SO_2: The SO_2 state and federal standards are currently being met throughout the Bay Area and have been met in recent decades. Therefore, the project's estimated emissions would be less than significant.

SOURCE: CalEEMod Output (see **Attachment 1**)

[3] While new development typically contributes to long-term increases in criteria pollutant emissions from traffic increases, proposed park facilities and picnic tables are expected to be used by neighborhood residents as well as patrons of nearby commercial uses. Therefore, it is expected that the project's trip generation and associated operational criteria pollutant emissions would be less.

3c. Cumulative Air Quality Impacts

To address cumulative impacts on regional air quality, BAAQMD has established thresholds of significance for construction-related and operational criteria pollutants and precursor emissions. These thresholds represent the levels at which a project's individual emissions of criteria pollutants and precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If daily average or annual emissions exceed these thresholds, the project would result in a cumulatively significant impact. Since the project's construction-related and operational criteria pollutant emissions would not exceed BAAQMD significance thresholds (as indicated in Table 1), the project's contribution is considered to be less than cumulatively considerable, and therefore, less than significant.

In addition, when the project's construction-related diesel particulate matter (DPM) emissions are considered with other existing stationary and mobile sources of toxic air contaminants (TACs), the project's contribution to cumulative emissions would not contribute to cumulative construction-related risk and hazard impacts would not be cumulatively considerable, a less than significant impact (see Section 3d below for more discussion).

3d. Exposure of Sensitive Receptors

The California Air Resources Board (CARB) regulates vehicle fuels with the intent to reduce emissions. Diesel exhaust is a serious concern throughout California. CARB identified diesel engine particulate matter as a toxic air contaminant and human carcinogen. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to the diesel particles, which are very small and can penetrate deeply into the lungs. Diesel engine particulate matter has been identified as a human carcinogen. Mobile sources such as trucks, buses, and automobiles are some of the primary sources of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections. The cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air pollutant routinely measured in the region. Diesel exhaust contains both pulmonary irritants and hazardous compounds that can affect sensitive receptors such as young children, senior citizens, or those susceptible to chronic respiratory disease such as asthma, bronchitis, and emphysema.

In 2005, CARB approved a regulatory measure to reduce emissions of toxic and criteria pollutants by limiting the idling of new heavy-duty diesel vehicles, which altered five sections of Title 13 of the California Code of Regulations. The changes relevant to the proposed project are in Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which limit idling of a vehicle's primary diesel engine for greater than five minutes in any location (with some exceptions) or operation of a diesel-fueled auxiliary power system within 100 feet of residential areas.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. Adjacent residences are considered to be the closest sensitive receptors to project construction.

Operation of proposed park facilities would not generate toxic air contaminants (TACs) that would pose health risks to adjacent or nearby uses. However, during project construction, combustion emissions from operation of off-road construction equipment on the project site would be generated and could expose adjacent and nearby receptors to diesel particulate matter (DPM). Due to the proximity of sensitive receptors to the project site, a screening-level construction-related health risk analysis was completed for the project and impacts on nearby sensitive receptors from DPM emissions. The results of the health risk

screening are summarized in **Table 2**. As indicated in this table, the project's construction-related DPM emissions would not exceed BAAQMD significance thresholds for cancer and non-cancer health risks for infants (up to 2 years in age), which have the highest age sensitivity factor (ASF). Therefore, the project's construction-related DPM emissions would result in a temporary, less than significant health risk (including infants) and no mitigation would be required.

In addition to the above construction-related risk and hazard impacts, sensitive receptors in the project vicinity would be exposed to cumulative risk and hazard impacts from the project's construction-related emissions in combination with existing stationary and mobile sources within approximately 1,000 feet of the project area. Therefore, in addition to project construction, local stationary or vehicular source emissions must be added to this concentration to determine the cumulative total. Specifically, BAAQMD requires that existing stationary and mobile emissions sources (i.e. freeways or roadways with more than 10,000 vehicles per day) within 1,000 feet of the project area also be considered. Any potential cumulative health risk would, therefore, derive from project activities plus any existing identified risk sources within the project vicinity. According to BAAQMD records, there are three stationary sources within 1,000 feet of the project site (**Table 3**), and one roadway within 1,000 feet of the site with average daily traffic volumes exceeding 10,000 (**Table 4**). As shown in **Table 5**, when emissions from these existing sources are added to project emissions, cumulative emissions would not exceed the cumulative significance thresholds for risk and hazard impacts at new on-site sensitive receptors or existing nearby receptors, a less than significant cumulative impact. Therefore, the project's contribution to cumulative construction-related risk and hazard impacts would be less than cumulatively considerable, a less than significant impact.

TABLE 2

CANCER RISK AND CHRONIC NON-CANCER HEALTH RISKS AT THE CLOSEST SENSITIVE RECEPTORS DUE TO DPM EXPOSURE DURING PROJECT CONSTRUCTION

Parameter	$PM_{2.5}$ Exposure, Excess Cancer Risk,[a] and Non-Cancer Chronic Hazard Index from Project Construction Activities at Maximally-Exposed Individual (MEI)
Maximum One-Hour $PM_{2.5}$	2.019 $\mu g/m^3$
Annual Average $PM_{2.5}$ (one-hour x 0.1)	0.2019 $\mu g/m^3$
Annual Average $PM_{2.5}$ Significance Threshold	0.3 $\mu g/m^3$
Exceeds Significance Threshold?	No
Age-Weighted Excess Risk for Infants	8.65 in a million[b]
Children	2.59 in a million[b]
Adults	0.87 in a million
Cancer Risk Significance Threshold	>10 in a million
Exceeds Threshold?	No
Chronic / Acute Non-Cancer Hazard Index	0.04 / 0.23
Chronic Non-Cancer Significance Threshold	Hazard Index >1.0
Exceeds Threshold?	No

NOTES:

[a] The predicted maximum one-hour DPM concentration is 2.019 $\mu g/m^3$ resulting from on-site total project DPM emissions of 0.0406 tons. The hourly to annual scaling factor is 0.1. AERSCREEN output thus indicates that project construction would produce a maximum annual DPM concentration of 0.2019 $\mu g/m^3$.

[b] The excess individual cancer risk factor for DPM exposure is approximately 300 in a million per 1 $\mu g/m^3$ of lifetime exposure (DPM ($\mu g/m^3$) x ASF x 300 x 10^{-6}) / 70 years. More recent research has determined that young children are substantially more sensitive to DPM exposure risk. If exposure occurs in the first several years of life, an age sensitivity factor (ASF) of 10 should be applied. For toddlers though mid-teens, the ASF is 3.

SOURCES: A screening-level individual cancer analysis was conducted to determine the maximum PM2.5 concentration from diesel exhaust. This concentration was combined with the DPM exposure unit risk factor to calculate the inhalation cancer risk from project-related construction activities at the maximally-exposed individual (MEI). The EPA AERSCREEN air dispersion model was used to evaluate concentrations of DPM and PM2.5 from diesel exhaust. The AERSCREEN model was developed to provide an easy to use method of obtaining pollutant concentration estimates and is a single source Gaussian plume model which provides a maximum one-hour ground-level concentration. The model output for this analysis and MEI location are included in the **Attachment 1** of this report.

TABLE 3

CUMULATIVE RISK AND HAZARD IMPACTS FROM EXISTING PERMITTED STATIONARY SOURCES

Site #	Facility Name	Street Address	City	Distance	Excess Cancer Risk	Chronic Hazard Index	PM2.5 ($\mu g/m^3$)
16604	Verizon Wireless Generator	100 W 3rd St	Morgan Hill	300 feet	2.85	0.00	0.00
14592	Verizon Wireless Generator	20 W 2nd St	Morgan Hill	870 feet	4.72	0.01	0.01
Total – Stationary Sources					**7.57**	**0.01**	**0.01**

TABLE 4

CUMULATIVE RISK AND HAZARD IMPACTS FROM EXISTING MOBILE SOURCES

Direction	Roadways with ADT of >10,000	Distance	ADT	Excess Cancer Risk (cases in a million)[a]	PM2.5 Concentration ($\mu g/m^3$)
N-S	Monterey Road	370 feet	17,780	1.73	0.034

NOTES: There were no freeways located within 1,000 feet of the project site.

[a] Interpolated for site-specific distances and ADTs on roadways near the project site were obtained from the City of Morgan Hill White Paper, *Transportation and Public Infrastructure*, May 16, 2013.

SOURCE: BAAQMD Roadway Screening Analysis Calculator, April 16, 2015. Available online at Available online at http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools.

TABLE 5

CUMULATIVE RISK AND HAZARD IMPACTS

	Excess Cancer Risk[a]	Chronic Hazard Index	Acute Hazard Index	PM2.5 ($\mu g/m^3$)
Maximally-Exposed Individual				
Stationary Sources (see Table 3 above)	33.36	0.01	-	0.06
Roadways (see Table 4 above)	1.73	<0.01	-	0.03
Proposed Project (worst-case)	8.65	0.04	0.23	0.20
Maximum Cumulative	**43.74**	**0.05**	**0.23**	**0.29**
Threshold	100	1	1	0.8
Exceeds Threshold?	No	No	No	No

NOTES:

[a] Cancer cases in a million

SOURCE: Tables 2, 3, and 4

3e. Odors

According to the BAAQMD CEQA Guidelines, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The project would not include any uses identified by BAAQMD as being associated with odors. No new or unusual sources of nuisance odors would be associated with the proposed residence. Therefore, the project's potential for nuisance odor problems would be less than significant.

During project construction, however, nuisance diesel odors associated with operation of diesel construction equipment on-site (primarily during initial grading phases), but this effect would be localized, sporadic, and short-term in nature. Therefore, temporary impacts from nuisance diesel odors on adjacent residential receptors would be less than significant.

Standard Measure (SM) – Air Quality (AQ)

The following standard measure will reduce potential construction-related air quality impacts on nearby sensitive receptors:

SM-AQ-1: *In accordance with the City of Morgan Hill Standard Conditions of Approval, a management plan detailing strategies for control of dust during construction of the project shall be included on all site development and grading plans. The intent of this condition is to minimize construction-related disturbance of residents of the nearby or adjacent properties. [Section 18.48.005 of the Morgan Hill Municipal Code].*

Mitigation Measures (MM)

Although the project's construction-related air pollutant emissions would not exceed the BAAQMD's applicable significance thresholds, the following measures are recommended by the BAAQMD to reduce the project's construction emissions:

MM-AQ-1: ***Basic Construction Measures.*** *To limit the project's construction-related dust and criteria pollutant emissions, the following BAAQMD-recommended Basic Construction Mitigation Measures shall be included in the project's grading plan, building plans, and contract specifications:*

a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. All vehicle speeds on unpaved roads shall be limited to 15 mph.

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.

f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

h. Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The following evaluation of biological resources on the subject property derives from Biological Resource Report[4] prepared by Mosaic Associates, LLC in August 2016 (included as **Attachment 2**). Information regarding the numerous trees on the park site was compiled by West Coast Arborists, Inc. for the City and was used in the biological assessment for the project. The biological resources report for the proposed project includes recommendations for the preservation and conservation of these resources through project site design.

4a, 4b, 4c, 4d. Special-Status Species, Sensitive Natural Communities and Wetlands, Protected Wetlands, Fish and Wildlife Movement, Corridors, Nursery Sites

The proposed Little Llagas Creek Park (APNs 767-07-065, 767-07-042, 767-08-003) is an irregularly shaped property that is situated west of Monterey Road between West Fourth Street and West Second Street in downtown Morgan Hill. Surrounding land uses include commercial and residential development. The park property consists of undeveloped and low-lying land bordering West Little Llagas Creek and to the west, the steeply inclined and paved West Third Street and Del Monte Avenue. The vegetation within the park property consists of mixed oak woodland.

[4] Mosaic Associates LLC, 2016. *Biological Resource Report for City of Morgan Hill Downtown Parks Project, Morgan Hill CA*. August.

Plant Communities and Wildlife Habitats. West Little Llagas Creek has steeply incised banks that are four to five feet deep. The creek was dry at the time of the field reconnaissance visit. South of West Second Street, the creek banks support ruderal, non-native plants including wild oats (*Avena fatua*), yellow star thistle (*Centauria solstitialis*) and curly dock (*Rumex crispus*), while elsewhere, dense riparian vegetation lines the banks of the creek. Vegetation along the creek includes non-native species such as Himalaya blackberry (*Rubus armeniacus*), fennel (*Foeniculum vulgare*), as well as native species tall flatsedge (*Cyperus eragrostis*), blue elderberry (*Sambuccus mexicana*), arroyo willow (*Salix lasiolepis*) and Oregon ash (*Fraxinus latifolia*). A single vehicular bridge crosses the creek. West of the creek is an open field that is surrounded by large mature trees including native valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), and non-native ornamental trees. South of the bridge and east of the creek is a small, level gravel-covered area that is also surrounded by trees including native coast live oak, and non-natives black acacia (*Robinia pseudoacacia*) and glossy privet (*Ligustrum lucidum*). The creek banks south of the bridge support non-natives Italian thistle (*Carduus pycnocephala*), Himalaya blackberry, and wild oat, as well as native species including common snowberry (*Symphoricarpos albus*) and tall flatsedge.

Black-tailed deer (*Odocoileus hemionus*) were observed during the site visit, as well as avian species including American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), northern flicker (*Colaptes auratus*), mourning dove (*Zenaida macroura*), oak titmouse (*Baeolophus inornatus*) and chestnut backed chickadee (*Poecile rufescens*). The trees within the proposed park, including the glossy privet trees south of West Third Street scheduled for removal provide suitable nesting habitat for these and other birds common to the region. The cavities and bark fissures in the large valley oak west of the creek also provides suitable roosting habitat for native bats, including pallid bat (*Antrozous pallidus*) and Yuma myotis (*Myotis yumanensis*). No ground squirrels or burrows are present.

Much of the Morgan Hill area supported agriculture, predominantly fruit and nut orchards. However, based on a review of historic aerial photographs[5] dating from 1948, the project site was maintained as an open space areas with many of the same large oak trees present today.

Special-status Species and Natural Communities. Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. Plant species on California Native Plant Society (CNPS) Lists 1 and 2 are also considered special status plant species and must be considered under CEQA.

Special-status natural communities are those that are considered rare in the region, support special-status plant or wildlife species, or receive regulatory protection (*i.e.,* Section 404 and 401 of the Clean Water Act, CDFW Section1600 *et seq*. of the California Fish and Game Code, and/or the Porter-Cologne Act). In addition, the California Natural Diversity Data Base (CNDDB) has designated a number of communities as rare; these communities are given the highest inventory priority (Holland 1986, CNPS 2011).

Three special-status species have potential to occur within the project area. Sections 6 and 7 below describe these species, potential impacts of the project and mitigation measures.

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[5] Available online at http://historicaerials.com.

No special-status natural communities (e.g., wetlands, riparian habitat) occur within the project area. As discussed above, the flood control channel is expected to qualify as waters of the U.S. and waters of the State; impacts below the tops of bank are regulated and fall under the jurisdiction of the USACE, RWQCB, and the CDFW.

Special-status Plant Species. No special-status plants are likely to occur within the project area. Suitable habitat for special-status plants is absent due to past disturbance and the absence throughout the project area of serpentine soils, wetlands or chaparral in which rare plants known from the region occur.

Special-status Animal Species. Special-status animal species include listed as Endangered, Threatened, Rare, or as Candidates for listing under the FESA or CESA. Other species regarded as having special-status include special animals, as listed by the CDFW. Additional animal species receive protection under the Bald and Golden Eagle Protection Act (BGEPA)[6] and the Migratory Bird Treaty Act (MBTA)[7]. The CFGC provides specific language protecting birds and raptors[8], "fully protected birds"[9], "fully protected mammals"[10], "fully protected reptiles and amphibians"[11] and "fully protected fish".[12]

Special-status wildlife with potential to be present in the project area include: western bumblebee, pallid bat and Yuma myotis. Habitat for other special-status wildlife known from the region surrounding the project site is absent due to habitat conversion in Depot Street and Hilltop Park, and the absence of suitable habitat such as wetlands, vernal pools, ground squirrel burrows, ponds or other habitat parameters that meet the requirements of special-status species known from the region.

Western Bumblebee: Western bumblebee (U.S. Fish and Wildlife Service Sensitive, XERCES Imperiled), once common and widespread has declined from central California to southern British Columbia. The reason or reasons for the decline remain unsolved, but a likely cause is thought to be due to a fungal pathogen. As generalist foragers, they do not depend on any one flower type (Xerces Society 2016). In addition to wild populations, the western bumblebee was once raised commercially in large numbers for use in pollinating crops in greenhouses.

The CNDDB reports a 1940 record of western bumblebee in the general vicinity of the project area. Given the presence of many native and non-native flowering plants in the vicinity of West Little Llagas Creek and the 1940 record, this species is considered to be present within the project area. Due to the past development of the parking lot, western bumblebee is unlikely to occupy the Depot Street Park site. Development of the project would result in limited site disturbance in Little Llagas Creek and the park site would continue to provide foraging habitat for this species at essentially the same locations and extent as is currently present. Therefore, the project is not expected to have a significant impact on the species. No mitigation is required.

Pallid Bat and Yuma Myotis: Pallid bat (California Species of Special Concern) is found in grasslands, chaparral, woodlands, and forests of California. It is most common in open, dry habitats with rocky areas for roosting. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and

[6] 16 USC 668, et seq.

[7] 16 U.S.C. 703-711

[8] §§3503 and 3503.5

[9] CFGC §3511

[10] CFGC §4700

[11] CFGC §5050

[12] CFGC §5515

valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings. They forage over open shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards. Roosts must protect bats from high temperatures. Pallid bats are very sensitive to disturbance of roosting sites.

Yuma myotis (Western Bat Working Group Low Priority) occurs in a variety of low elevation habitats including riparian, arid scrublands and deserts, and forests. Day roosts are found in buildings, trees, mines, caves, bridges and rock crevices. Night roots are usually associated with buildings, bridges or other man-made structures (Philpott 1996).

Although no evidence of bat occupancy in the trees within the project area was observed during the site visit, the large trees on site provide suitable habitat for pallid bat and Yuma myotis roosting. Pallid bat and Yuma myotis have potential to roost or hibernate in trees within the West Little Llagas Creek site. Tree removal and pruning could result in a take of roosting bats, including a maternity colony, if present. Take of a maternity colony or roosting special-status bats would be considered a significant impact. This impact would be significant, but implementation of the mitigation measures described below would reduce this impact to a less than significant level.

Nesting Raptors and Other Migratory Birds: In addition to the bird species considered to have special-status by the CDFW, numerous, common bird species receive protection under federal and state laws, e.g. the federal Migratory Bird Treaty Act of 1918 (MBTA)[13] and the Migratory Bird Treaty Reform Act of 2004 (MBTRA). In general, any activity that would directly or indirectly cause the destruction or abandonment of a nest actively being used for breeding or rearing of chicks of any covered bird species is illegal. Unoccupied nests, including old, abandoned nests as well as those recently vacated by fledglings, are not protected. A complete list of bird species covered under the MBTA/MBTRA is available from the USFWS; a list of bird species of conservation concern is available from the USFWS.

Trees within the project area provide suitable nesting habitat for numerous migratory birds including raptors. Tree removal or construction activities in close proximity to active nests may cause the failure or abandonment of active nests.

As a Standard Condition of Approval, prior to the removal or significant pruning of any trees, they should be inspected by a qualified biologist for the presence of raptor nests. This is required regardless of season. If a suspected raptor nest is discovered, the CDFW shall be notified. Raptor nests, whether or not they are occupied, may not be removed until approval is granted by the CDFW. If clearing and grubbing, and tree removal or pruning are to be conducted outside of the breeding season (i.e., September 1 through January 31), no pre-construction surveys for actively nesting migratory birds (passerines or other non-raptor species) is necessary. Pre-construction surveys for nesting birds shall be conducted by a qualified biologist not more than two weeks prior to site disturbance during the breeding season (February 1 through August 31). If active nests of raptors and other migratory birds are not detected within approximately 250 feet of the project site, no further mitigation is required. If nesting raptors or other migratory birds are detected on or adjacent to the site during the survey, a suitable construction-free buffer should be established around all active nests. The dimensions of the buffer (up to 250 feet) should be determined at that time and may vary depending on location and species. The buffer areas should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

[13] 16 U.S.C. 703-711

Waters of the United States and State. Section 404 of the Clean Water Act (CWA) of 1972 regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands. The primary intent of the CWA is to authorize the U.S. Environmental Protection Agency (EPA) to regulate water quality through the restriction of pollution discharges. The U.S. Army Corps of Engineers (USACE) has the principal authority to regulate discharges of dredged or fill material into waters of the U.S.

Pursuant to Section 401 of the Clean Water Act, an applicant for a federal permit to conduct any activity which may result in discharge into navigable waters must provide a certification from the Regional Water Quality Control Board (RWQCB) that such discharge will comply with the state water quality standards (Cal. Code Regs. Tit. 23, §§3830 *et seq*.).

Under the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000-14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State's waters. "Waste" is broadly defined by the Porter-Cologne Act to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature…." (Cal. Water Code §13050).

The CDFW exercises jurisdiction over wetland and riparian resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 to 1607. The CDFW has the authority to regulate work that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. Areas subject to CDFW's jurisdiction over rivers, streams, creeks or lakes are usually bounded by the top-of-bank or the outermost edges of riparian vegetation.

Discharges of fill material into Little Llagas Creek would be regulated by the USACE and RWQCB, while CDFW would regulate work in the creek extending to the outer limit of riparian vegetation.

West Little Llagas Creek, which meets the criteria as a water of the U.S. and State is present within the Little Llagas Creek Park site. Development of the Little Llagas Creek Park would require the removal and replacement of an existing vehicular bridge, and construction of a new pedestrian bridge across the creek. No riparian tree removal would be required for bridge construction activities. Bridge construction activities may require the discharge of fill and excavation in waters of the U.S. and/or State, and have the potential to adversely affect water quality in West Little Llagas Creek.

An unpaved, mulched surface trail and two benches will be constructed above the top of bank and beneath the canopy of existing trees in the Streamside Protection Area, but no earthwork below top of bank or riparian tree removal will be required. Because these amenities do not require earthwork below top of bank or the removal of riparian vegetation, the habitat values in the Streamside Protection zone would not be diminished and the effect would be considered less than significant.

Authorization for the discharge of fill into waters of the U.S. and State may be required under Sections 401 (RWQCB) and 404 of the Clean Water Act (USACE), and Section 1600 of the California Fish and Wildlife Code (CDFW). The discharge of fill and excavation in waters of the U.S. and State for bridge construction activities would be a potentially significant impact, but implementation of the mitigation measures below would reduce this impact to a less than significant level.

4e. Tree and Biological Protection Ordinances

The City of Morgan Hill recognizes the importance of trees to the community and has established policies and guidelines for the preservation of native plants in the City's Natural Resources and Environment Element of the 2035 General Plan. Specifically, Policy NRE-6.4 of the Element states:

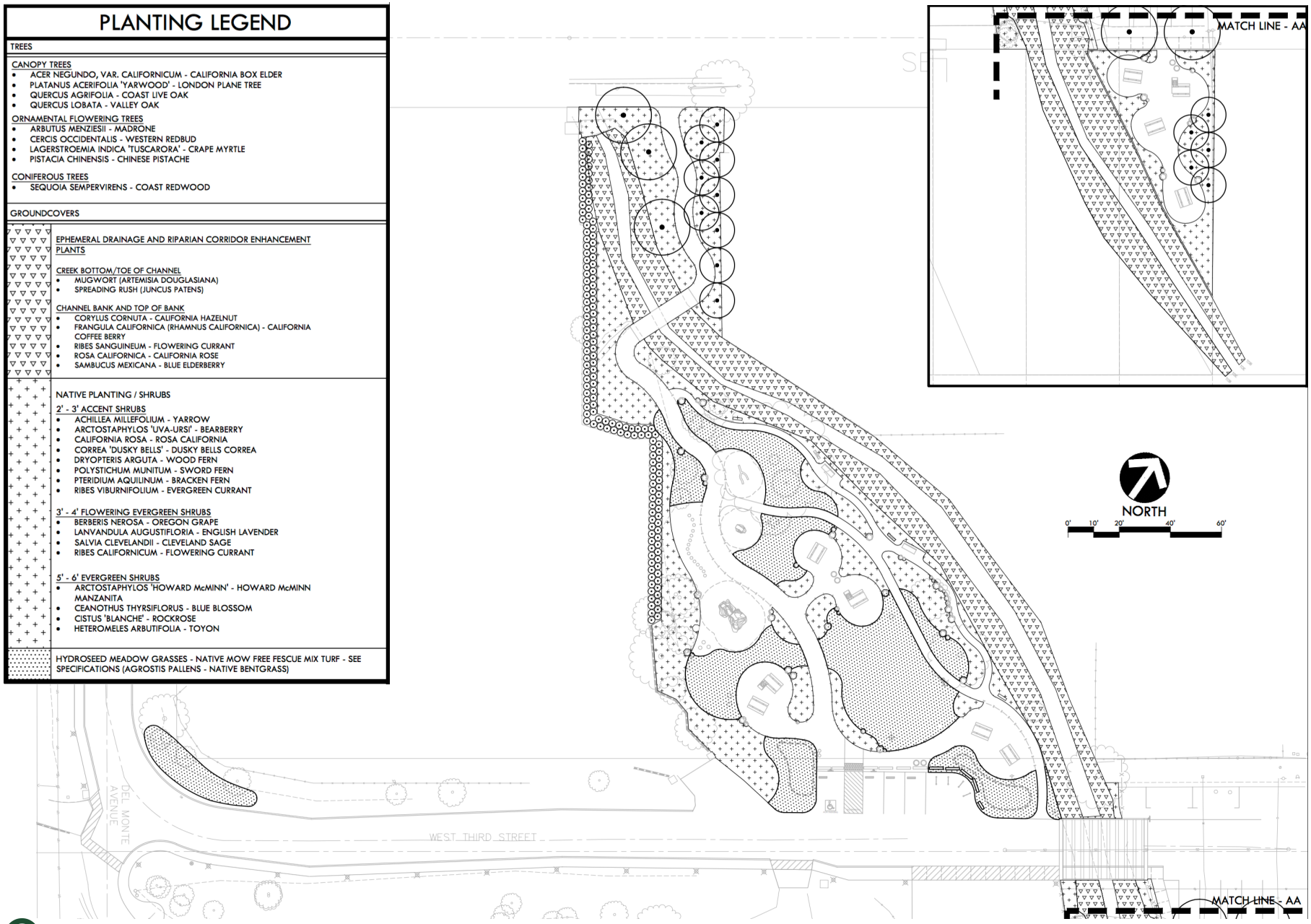
FIGURE 9: JURISDICTIONAL WATERS OF THE U.S.

A. SOUTHWARD VIEW OF WEST LITTLE LLAGAS CREEK CHANNEL AND WEST THIRD STREET BRIDGE FROM PARK SITE

B. VIEW OF WEST LITTLE LLAGAS CREEK CHANNEL TOWARD WEST SECOND STREET

Source: Geier & Geier Consulting, Inc. (2016)

FIGURE 10: PLANTING PLAN



Source: Verde Design, *Construction Drawings for Little Llagas Creek Park, 60% Review Submittal,* June 9, 2016.

> *"Tree Preservation and Protection*. Preserve and protect mature, healthy trees whenever feasible, particularly native trees, historically significant trees, and other trees which are of significant size or of significant aesthetic value to the immediate vicinity or to the community as a whole."

These guidelines are implemented through Chapter 12.32 of the City Municipal Code, Restrictions on Removal of Significant Trees. Section 12.32.020 of the Code defines the type of plant that qualifies as a "tree" and the legal protection afforded to such resources. The section establishes the following definition:

> 12.32.020 - Definitions. G. "Tree" means any live woody plant rising above the ground with a single stem or trunk of a circumference of forty inches or more for nonindigenous species and eighteen inches or more for indigenous species measured at four and one-half feet vertically above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes. All commercial tree farms, *nonindigenous tree species in residential zones and orchards (including individual fruit trees) are exempted from the definition of tree for the purpose of this chapter*. Trees of any size within the public right-of-way shall constitute a tree for the purposes of this subsection.

The park project plans include the preservation and protection of all trees on the three subject parcels proposed for recreational improvements. In this manner, the park project supports the City's goals and policies for the preservation of natural resources within the community. However, the project would entail the removal of four privet trees that are within the southern right-of-way of West Third Street, adjacent to the southern park site parcel. These non-native ornamental trees provide screening of the proposed picnic area that is separate from the main park site. The Planting Plan specifies landscape planting for this parcel and includes 12 replacement trees selected from native species such as coast live oak, valley oak, coast redwood, madrone, and box elder. The replacement four non-native street trees with native, drought-resistant species would be considered a less than significant impact of the proposed park project.

4f. Habitat Conservation Plans

The Santa Clara Valley Habitat Plan (SCVHP) was implemented in 2013. Six local partners (the County of Santa Clara, Santa Clara Valley Transportation Authority; Santa Clara Valley Water District, and the Cities of San Jose, Gilroy, and Morgan Hill) and two wildlife agencies (the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service) prepared and adopted this multispecies habitat conservation plan, which primarily covers southern Santa Clara County, as well as the City of San Jose with the exception of the bayland areas. The SCVHP addresses conservation of listed species and species that are likely to become listed during the plan's 50-year permit term. The eighteen covered species include nine plants and nine animals, including the western burrowing owl and the California tiger salamander. In general, the SCVHP is a fee-based program aimed at providing for the regional conservation of these species.

The project area is within the SCVHP permit area. Recreational facilities including parks are categorized as urban development and are a "Covered Activity" under the plan. The Depot Park and portions of the Hilltop and Little Llagas Creek Park properties are classified as Urban – Suburban Land Cover, but are not subject to any SCVHP land cover fees. Other portions of the Hilltop and Little Llagas Creek Park properties have a Mixed Oak Woodland and Forest Land Cover type and are subject to Fee Zone B (Agricultural and Valley Floor Land) fees. The City of Morgan Hill will be required to submit an application for SCVHP coverage, and pay the appropriate fees based upon the area of park development within Fee Zone B.

Mitigation Measures – Biological Resources (BIO)

Pallid bat and Yuma myotis have potential to roost or hibernate in trees within the Little Llagas Creek and Hilltop Park sites. Tree removal and pruning could result in a take of roosting bats, including a maternity colony, if present. Take of a maternity colony or roosting special-status bats would be considered a significant impact. This impact would be significant, but implementation of the following mitigation measure would reduce this impact to a less than significant level:

MM-BIO-1: Special-Status Bats*. Prior to the removal and/or pruning of mature trees, the measures presented below shall be performed.*

a. A qualified biologist, knowledgeable about local bat species and experienced with bat survey methods, shall inspect all trees that could support bats in the project area prior to the start of site disturbance (e.g. demolition, vegetation removal and earthwork). Surveys should be conducted during appropriate weather to detect bats (not in high winds or during heavy rain events). One daytime and up to two nighttime surveys (starting at least 1 hour prior to dusk) shall be conducted to determine if bats are present. If bats are detected, additional surveys utilizing acoustic monitoring or other methods may be necessary depending on the recommendations of the bat biologist.

b. Preconstruction surveys for bats shall be conducted within two weeks prior to the removal of any trees or structures that are deemed to have potential bat roosting habitat. If bats are detected on-site and would be impacted by the project, then appropriate mitigation measures will be developed with approval from CDFW. Mitigation measures would include one or more of the following methods: using one-way doors to exclude non-breeding bats, opening up roof areas of structures to allow airflow that would deter bats from roosting, and taking individual trees down in sections to encourage bats to relocate to another roost site. Typically this work is conducted in the evening when bats are more active, and this work shall be conducted under the guidance of an experienced bat biologist.

c. Mitigation for impacts to a maternity bat roost, if detected, will be determined through consultation with CDFW, and may include construction of structures that provide suitable bat roosting habitat (i.e. bat houses, bat condos) for the particular species impacted.

Trees within the Study Area provide suitable nesting habitat for numerous migratory birds including raptors. Tree removal or construction activities in close proximity to active nests may cause the failure or abandonment of active nests. This impact would be significant, but implementation of the following mitigation measure would reduce this impact to a less than significant level:

MM-BIO-2: Nesting Raptors and Other Migratory Birds*. Pre-construction surveys for nesting birds shall be conducted by a qualified biologist not more than two weeks prior to site disturbance during the breeding season (February 1 through August 31). If site disturbance commences outside the nesting season, pre-construction surveys for nesting birds are not required. If active nests of raptors and other migratory birds are not detected within approximately 300 feet of the project site, no further mitigation is required. If nesting raptors or other migratory birds are detected on or adjacent to the site during the survey, a suitable construction-free buffer shall be established around all active nests. The dimensions of the buffer (generally 50 feet for passerines and 300 feet for raptors) shall be determined at that time and may vary depending on location and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season*

or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

Authorization for the discharge of fill into waters of the U.S. and state may be required under Sections 401 (RWQCB) and 404 of the Clean Water Act (USACE), and Section 1600 of the California Fish and Wildlife Code (CDFW). The discharge of fill and excavation in waters of the U.S. and State for bridge construction activities would be a potentially significant impact, but implementation of the following mitigation measure would reduce this impact to a less than significant level:

MM-BIO-3: Discharge of Fill and Excavation into Waters of the U.S. and State*. If the discharge of fill or excavation in waters of the U.S. and State is required, the measures presented below shall be implemented.*

a. The fill and excavation of waters of the U.S. and State will be avoided and minimized to the extent feasible. The new bridges will span the creek to avoid the permanent discharge of fill in waters of the U.S. and State. If temporary discharges of fill occur during construction, they will be removed and the creek banks and channel will be restored to pre-construction conditions. Authorization for the fill and excavation of waters of the U.S. and state shall be obtained by the City of Morgan Hill prior to the start of construction.

b. Adverse impacts to water quality shall be avoided and minimized by implementing the following measures:

- *Prior to the start of site disturbance activities, construction barrier fencing and silt fencing shall be installed at the limit of construction activity along the creek to prevent the inadvertent discharge of sediment and construction materials into the creek. Any debris that is inadvertently deposited into the creek during construction shall be removed in a manner that minimizes disturbance.*
- *All construction within jurisdictional features shall be conducted consistent with permits issued by the Corps, RWQCB and CDFW. Construction activities within these features shall be completed promptly to minimize their duration and resultant impacts.*
- *Contractors shall be required to implement a Storm Water Pollution Prevention Plan (SWPPP) that describes Best Management Practices including the conduct of all work according to site-specific construction plans that minimize the potential for sediment input to the aquatic system, avoiding impacts to areas outside the staked and fenced limits of construction, covering bare areas prior to storm events and protecting disturbed areas with approved erosion control materials.*

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

The evaluation of historic resources on the project site is based upon field reconnaissance[14] of the project area, a review of the listed historic properties presented in the DEIR for the City of Morgan Hill 2035 General Plan, and the City's recently updated Historical Resources Code (Chapter 18.75 Morgan Hill Municipal Code).

5a. Historical Resources

The proposed park site consists of three parcels (APNs 767-07-065, 767-07-042, and 767-08-003) comprising approximately one acre that has been historically used for drainage and open space purposes. The project also includes approximately 0.7 acres of right-of-way for West Third Street and Del Monte Avenue west of Monterey Road.

The project site is not included on the City's list of historic properties and contains no structures. Due to the project site's location in downtown Morgan Hill, there are several listed historic properties in the vicinity of proposed park site. The closest historic property to the project site is the McCreery House, located at 25 West Fourth Street, approximately 130 feet southeast of parcel 767-08-003. This southernmost parcel of the park site is adjoins the left bank of West Little Llagas Creek, which also separates the proposed park's picnic area from the McCreery House property. The distance between the park site, the creek channel, and dense riparian vegetation lining both sides of West Little Llagas Creek provide a physical as well as visual separation between this historic property and the proposed park. There would be no direct or indirect effects from park development on historic resources. Consequently, the proposed park would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

5b, 5d. Archaeological Resources and Human Remains

Archaeological surveys conducted in Morgan Hill have identified numerous prehistoric sites with shell midden components, including human burials. This finding indicates there is potential for additional undiscovered archeological resources in the City.

The results of a literature review[15] for the project area indicated that there were no recorded historic and/or prehistoric archaeological sites inside the project borders. A formal archaeological study of the parcels was done in 1973 for the Llagas Creek Project, a linear study which included the creek and its riparian zone; no archaeological resources were discovered within a quarter mile of the current project area. The parcel is considered to have a low to moderate potential for the discovery of prehistoric archaeological resources.

The proposed project would be subject to the provisions of City of Morgan Hill Municipal Code Section 18.75.110. This section specifies that if a project is located within or adjacent to a known archaeological site, then a CEQA review of the project shall consider potentially significant impacts on archaeological resources and identify appropriate mitigation measures to be imposed as conditions of approval in addition to the standard conditions identified in subsection B of Section 18.75.110. Subsection B stipulates that if the project is not located within or adjacent to a known archaeological site, then the

[14] Conducted on May 26 and August 10, 2016.

[15] Holman & Associates, 2015. Archaeological Literature Review for the 39-59 West Dunne Avenue Property. April 2.

project applicant has the option to complete an archaeological survey of the property to determine the appropriate mitigation to be used as conditions of project approval or comply with the standard conditions of approval which shall be conclusively deemed to reduce potentially significant impacts to less than significant levels. Since the project area has been surveyed as part of the Llagas Creek Project, the requirement for an archaeological survey of the project site has been met and no further action is required for compliance with the City's Historic Resources Code. The completion of the archaeological survey of the project parcels reduces potentially significant impacts on archaeological resources to a less than significant level.

In the event that undocumented human remains or unknown significant historic or archaeological resources are discovered, subsection B.2. of Section 18.75.110 provides a specific protocol for the treatment of the uncovered human remains and/or resources. The protocol entails the process of identifying the human remains and the contact of appropriate parties such as the Native American Heritage Commission and the Amah Mutsun Tribal Band to determine Most Likely Descendant for further consultation on the disposition of the remains.

5c. Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and fossils of microscopic plants and animals (microfossils). The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found. Fossil discoveries not only provide a historic record of past plant and animal life, but may assist geologists in dating rock formations. A review of records maintained by the University of California Museum of Paleontology in Berkeley indicates that the closest paleontological resources recorded in Santa Clara County occur approximately six miles north of Morgan Hill. These resources were discovered in geologic strata dating from the Pleistocene epoch of the Quaternary Period (2.6 million to 11,700 years ago).

Geologic mapping for the proposed project indicates the site is underlain by Pleistocene alluvial fan deposits. These deposits are similar in age to those containing the recorded paleontological resources; however, the site of the discovered paleontological specimen was in the hills north of Morgan Hill.

A review of the University of California's Museum of Paleontology's (UCMP) fossil locality database was conducted for all of Santa Clara County in the preparation of the EIR for the 2035 General Plan (July 2016). No paleontological resources have been explicitly identified as being found within Morgan Hill. Nonetheless, while the potential for encountering paleontological resources at the project site is considered to be low due to the distance to the closest resource, there remains the potential to unearth unknown paleontological resources at the project site. In the event that such resources are uncovered, the standard conditions of approval for the mitigation of archaeological resource discovery will be applied to paleontological resources. Consequently, the project impacts on paleontological resources would be less than significant.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Geology and Soils - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Geological mapping for the project area indicates that the site is underlain by alluvial gravel, sand, and clay.[16] Soils on-site are mapped as belonging primarily to the San Ysidro loam series, with Keefers clay loam and Gilroy clay loam soils in the southern and westernmost portions of the project area. Soils were not specifically sampled on-site as part of this investigation and have not been confirmed. However, based on topographic position and vegetation characteristics, the characterizations of the soil types are consistent of site conditions. The San Ysidro series consists of deep, moderately well drained soils that formed in alluvium from sedimentary rocks. San Ysidro soils are on old, low terraces and have slopes of 0 to 9 percent and at elevations of less than 1,500 feet above MSL. Where not cultivated, the natural vegetation on these soils consists of annual grasses, forbs and scattered oaks.

Soils on a southern portion of the project area are mapped as Keefers clay loam, 0 to 2 percent slopes. For these units, runoff is slow to very slow and permeability is slow to ponding. The hazard of erosion is none to slight. While neither of the Keefer soils units is considered a hydric soil type, unnamed hydric inclusions may be associated with upland seeps.[17]

The western part of the project area in the vicinity of Del Monte Avenue is a mapped as Gilroy clay loam, 30 to 50 percent slopes. The Gilroy series consists of moderately deep, well-drained soils that formed in material weathered from basic igneous and metamorphic rocks. Gilroy soils are on uplands and have slopes of 9 to 75 percent. Gilroy soils are on hillslopes in hills and mountains and have slopes of 9 to 75 percent. The soils formed in material weathered from basic igneous and metabasic rocks. For these units, soils are well drained with medium to rapid runoff and moderately slow permeability. The hazard of erosion is very high.

[16] Diblee, T.W. and Minch, J.A., 2005. *Geologic Map of the Morgan Hill Quadrangle, Santa Clara County, California. Dibblee Foundation Map DF-159.* Available online at http://ngmdb.usgs.gov/Prodesc/proddesc_71773.htm

[17] USDA, *Hydric Soils, Eastern Santa Clara Area, California*. Natural Resource Conservation Service; Web Soil Survey, available online at http://websoilsurvey.nrcs.usda.gov/app/. Report printed March 24. 2015.

6a. Seismic Hazards and Landslides

The proposed park project involves the construction of a passive park area and installation of recreational features such as play areas and picnic tables. The park site is generally level with sloped areas limited to the creek embankments. West Third Street and Del Monte Avenue are characterized with rising and descending slopes to the southeast and northwest, respectively. Seismic hazards potentially affecting the park site include groundshaking and landslides (soil slumps and debris flows).

Fault Rupture. The project site is not located within an Alquist-Priolo Earthquake Fault Zone[18] and based on mapping of geologic hazards by Santa Clara County, the proposed project site is not crossed by any active fault zones.[19] Therefore, impacts related to the potential for fault rupture would be less than significant.

Ground Shaking. Ground shaking is the cause of most damage during earthquakes and an earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site, similar to that which has occurred in the past. The three faults that would most likely produce strong groundshaking at the project site include the San Andreas Fault located about 15 miles to the southwest, the Calaveras Fault located approximately 6.5 miles to the northeast, and the Sargent Fault located approximately 12 miles to the southwest.

The Association of Bay Area Governments has estimated the degree of groundshaking that could occur in the San Francisco Bay area on a regional basis and estimates that the project area would experience very strong ground shaking (Modified Mercali Intensity VII) in the event of an earthquake on one of the regional faults.[20]

As part of its review, the City of Morgan Hill Community Development Agency Building Division would review the planned design to ensure compliance with the CBC as relevant. Because there are no buildings proposed for construction under the proposed park project plans, there is no potential for injury, loss of life, or property damage from the collapse of structures in a major earthquake. As a result, potential impacts related to groundshaking would be less than significant.

Liquefaction. Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary, but essentially total, loss of shear strength because of pore pressure build-up under the reversing cyclic shear stresses associated with earthquakes. The project site is not located within a Santa Clara County Liquefaction Hazard Zone[21] or within a State of California Seismic Hazard Zone for liquefaction potential.[22] Therefore, impacts related to liquefaction and related phenomena would be less than significant.

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[18] California Division of Mines and Geology, 1982. State of California Special Studies Zones, Morgan Hill, Revised Official Map. January 1. Available online at http://gmw.consrv.ca.gov/shmp/download/quad/MORGAN_HILL/maps/MORGANHILL.PDF.

[19] The County of Santa Clara, 2012. Santa Clara County Geologic Hazard Zones. October 26. Available online at http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf.

[20] Association of Bay Area Governments, 2014. Earthquake and Hazards Program, Santa Clara County Earthquake Hazard. Available online at http://quake.abag.ca.gov/earthquakes/santaclara/ on January 6, 2014.

[21] The County of Santa Clara, 2012. Santa Clara County Geologic Hazard Zones. October 26. Available online at http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf65tg

[22] California Geological Survey, 2004. *State of California Seismic Hazard Zones, Morgan Hill Quadrangle, Official Map*. October 19.Available online at http://gmw.consrv.ca.gov/shmp/download/quad/MORGAN_HILL/maps/ozn_morgh.pdf.

Landslides. The proposed park site is not located within a Santa Clara County Landslide Hazard Zone[23] or within a State of California Seismic Hazard Zone for landslide potential.[24] Earthquake hazard maps prepared by the CGS show only isolated, small seismic-induced landslide hazard areas in the project area. Most of these zones are found in the northeast part of Morgan Hill beyond Hill Road where they are almost exclusively limited to steeper hillsides. Landslides are not an issue for proposed park site and the majority of the downtown area where the topography is flat.

The Landslide Hazard Zone mapping does identify the Nob Hill area as at risk for landslide hazard, principally due to the steep slopes on hillside. The portions of West Third Street and Del Monte Avenue are located within this designated hazard zone. Policy SSI-2.7 of the Safety, Services, and Infrastructure Element specifies that development on known active landslides should be prohibited and development in areas where such development might initiate sliding or be affected by sliding on adjacent parcels should be limited. The improvements proposed as part of the park development project includes repaving parts of West Third Street and Del Monte Avenue. To the extent that such roadway improvements constitute maintenance and repair of infrastructure, this element of the proposed project would be consistent with General Plan policy SS-2.7. Therefore, impacts related to landslides, including seismically induced landslides, would be less than significant.

6b. Erosion Hazards

Due to the site topography and soils types, park site slopes are gentle and runoff is characterized as slow to medium. Erosion hazards would be considered slight.[25] However, without proper soil stabilization controls, construction activities such as demolition, excavation, backfilling, and grading can increase the potential for soil loss and erosion by wind and stormwater runoff through the removal of stabilizing vegetation and exposure of areas of loose soil. The Preliminary Grading Plan for the project is shown in **Figure 11**.

The potential for soil erosion exists during the construction period when the existing cover has been removed and before new vegetation or hardscape is installed. However, as discussed in Section 9, Hydrology and Water Quality, in accordance with Chapter 13.30 of the City of Morgan Hill Municipal Code (Urban Storm Water Quality Management and Discharge Control), the project would be required to comply with the State Water Resources Control Board (SWRCB) NPDES General Permit No. CAS000002 waste discharge requirements (WDRS) for discharges of storm water runoff associated with construction activity to control erosion during construction. A storm water pollution prevention plan (SWPPP) manual will be a condition of a subdivision map, site plan, building permit, or development or improvement plan for all projects disturbing a soil area of one or more acres, or projects part of a larger common plan of development that in total disturbs more than one acre. Preparation of a SWPPP manual will be prepared in accordance with the most current SWRCB NPDES General Permit No. CAS000002 for construction activities and the SWPPP manual will be made available at construction sites at all times.

With implementation of these regulatory requirements, geologic impacts related to erosion during construction would be less than significant.

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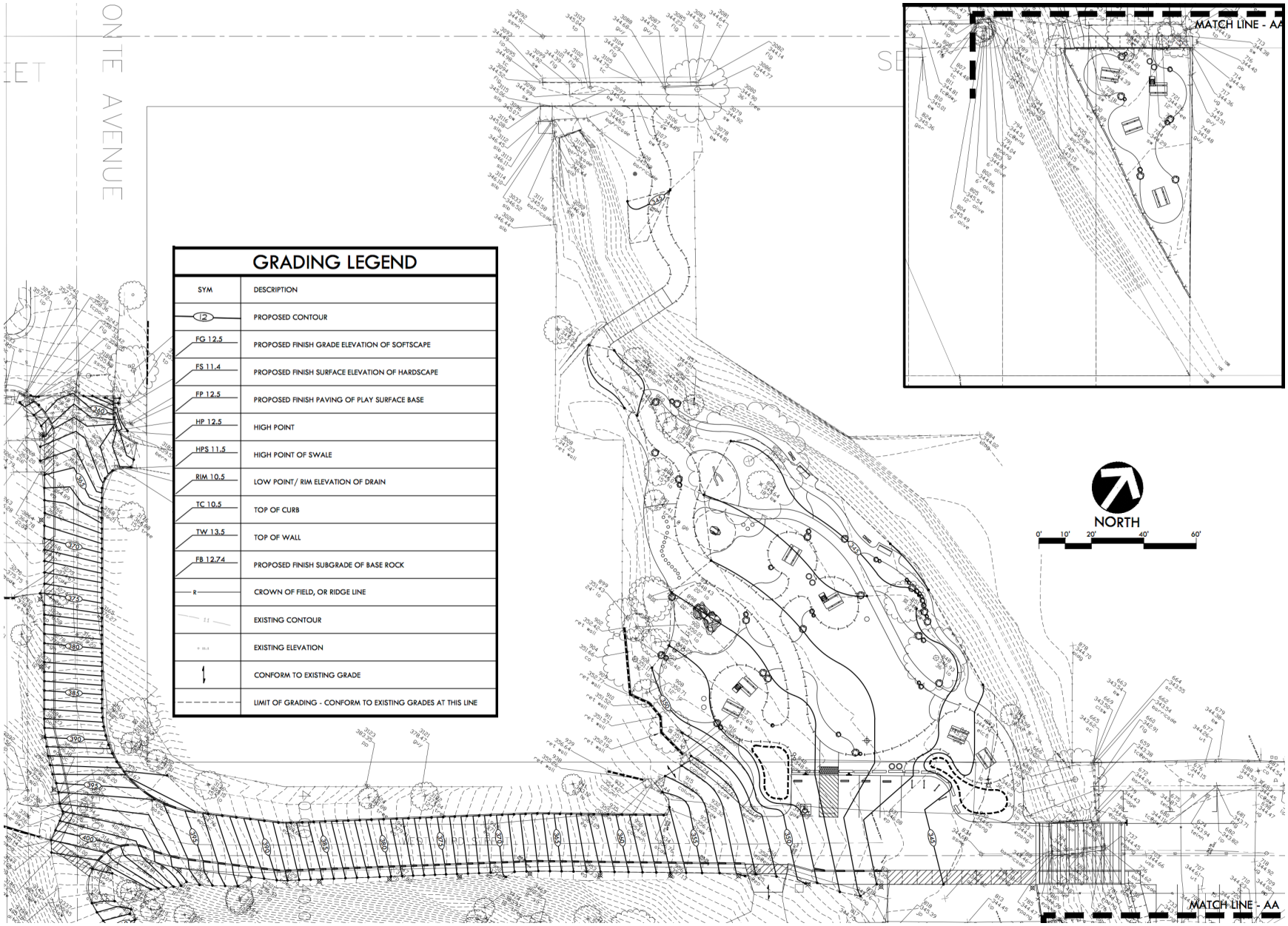
[23] The County of Santa Clara, 2012. Santa Clara County Geologic Hazard Zones. October 26. Available online at http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf65tg

[24] California Geological Survey, 2004. *State of California Seismic Hazard Zones, Morgan Hill Quadrangle, Official Map*. October 19.Available online at http://gmw.consrv.ca.gov/shmp/download/quad/MORGAN_HILL/maps/ozn_morgh.pdf.

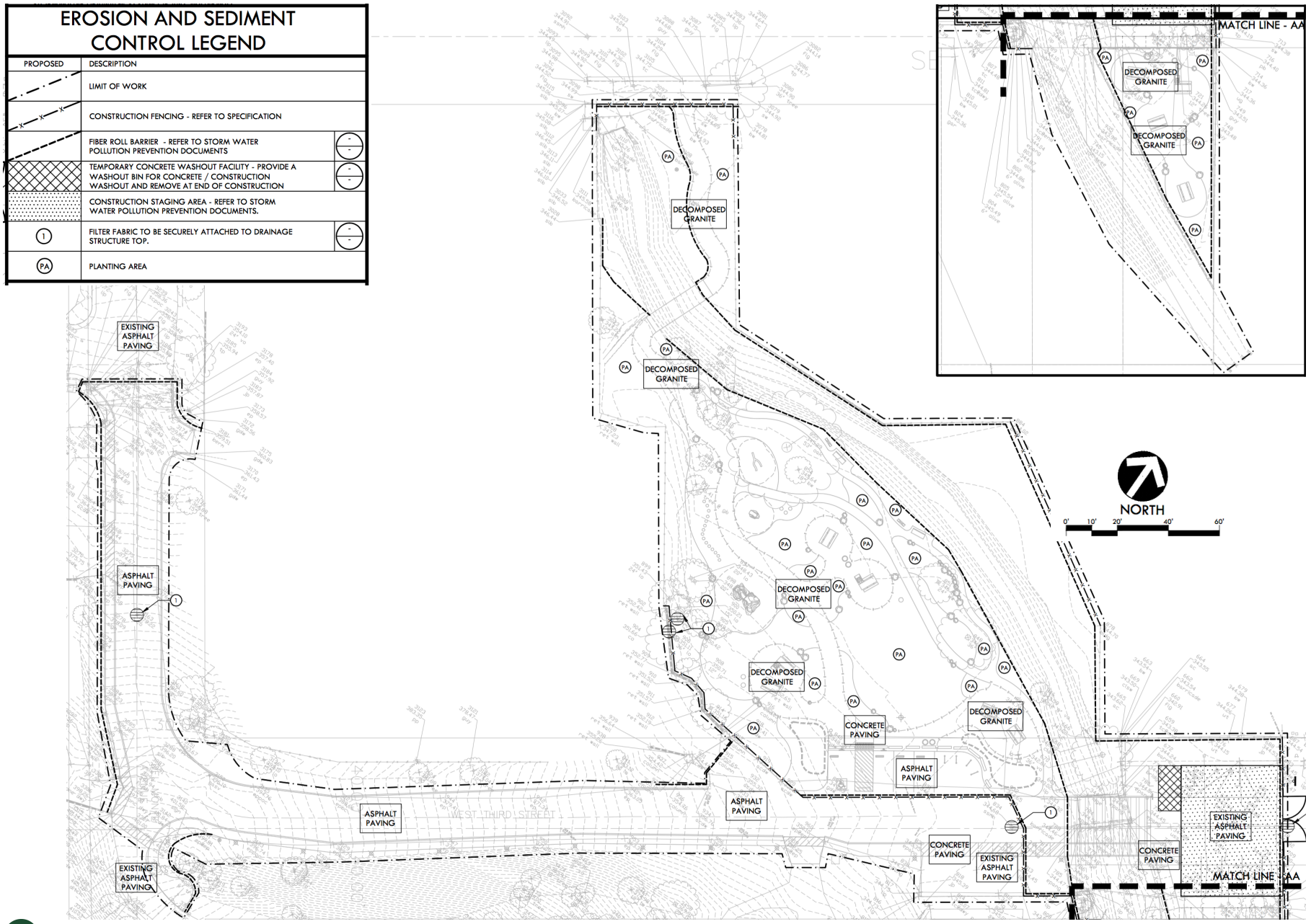
[25] U.S. Department of Agriculture, 1968. Soil Survey: Santa Clara Area, California. June.

FIGURE 11: GRADING PLAN



Source: Verde Design, *Construction Drawings for Little Llagas Creek Park, 60% Review Submittal,* June 9, 2016.

FIGURE 12: EROSION AND SEDIMENT CONTROL PLAN



Source: Verde Design, *Construction Drawings for Little Llagas Creek Park, 60% Review Submittal,* June 9, 2016.

6c, 6d, 6e. Geologic Stability and Soil Engineering Constraints

Unstable Geologic Units or Soil. The proposed park site is not located within a Santa Clara County Compressible Soil or Landslide Hazard Zone[26] indicating that neither of these potential hazards would affect the project site. Further, the project would not include construction of basements or other subsurface structures that would involve substantial excavations that could become unstable. Therefore, this impact would be less than significant.

Expansive Soil. As discussed above, the geologic materials beneath the park site consist of San Ysidro and Keefers soils series, and Gilroy soil series in the vicinity of Del Monte Avenue. These well-drained loams and clay loams are underlain by alluvium from basic igneous rock. The plasticity for San Ysidro and Keefers soils is described as slightly plastic, while the Gilroy soils series is considered plastic.[27] Highly plastic soils usually have high inherent swelling capacity.[28] Because these soils do not contain a substantial amount of clay, they would not be expansive, and impacts related to construction on expansive soils would be less than significant.

Soils Incapable of Supporting Septic Tanks or Alternative Wastewater Disposal Systems. The project site is located within the Morgan Hill city limits and the area is served by the community's sewer system. No septic tanks or wastewater disposal systems would be required for the project.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Greenhouse Gases - Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

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[26] The County of Santa Clara, 2012. Santa Clara County Geologic Hazard Zones. October 26. Available online at http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf65tg

[27] U.S. Department of Agriculture, 1997. National Cooperative Soil Survey: San Ysidro and Keefers Soil Series. February. Available online at https://soilseries.sc.egov.usda.gov/OSD_Docs/S/SAN_YSIDRO.html and https://soilseries.sc.egov.usda.gov/OSD_Docs/K/KEEFERS.html.

[28] Rogers. J.D. et al, 1993. *Damage to Foundations from Expansive Soils.*

Significance Thresholds and Criteria. Exercising its own discretion as lead agency and similar to other San Francisco Bay Area jurisdictions, City staff has decided to rely on the thresholds within the *Options and Justification Report* (dated October 2009) prepared by BAAQMD.[29] BAAQMD *Options and Justification Report* establishes thresholds based on substantial evidence and are consistent with the thresholds outlined within BAAQMD's 2011 CEQA Air Quality Guidelines.[30] Although BAAQMD failed to comply with CEQA before adopting its CEQA Guidelines, City staff believes that these recommendations still represent the best available science on the subject of what constitutes significant GHG effects on climate change and they are as follows:

- Compliance with a Qualified Climate Action Plan or
- Meet one of the following thresholds:
  - 1,100 MT CO_2e per year; or
  - 6.7 MT CO_2e per capita per year (residential) / 4.6 MT CO_2e per service population per year (mixed use)

For purposes of this report, project compliance with the 1,100 MT CO_2e/year threshold is used as the primary basis to determine significance.

7a. Greenhouse Gas (GHG) Emissions

Short-term GHG emissions would be generated by project-related construction activities. The CalEEMod 2011.1.1 computer model was used to calculate GHG emissions that would be generated by the construction of proposed park facilities. Operation of off-road construction equipment during project construction would generate up to approximately 73 metric tons of CO_2-equivalents (MT CO_2e) per year.[31] BAAQMD does not have a quantitative significance threshold for construction-related GHG emissions, but the project's estimated construction-related GHG emissions are expected to have a less than significant impact on global climate change. For comparison purposes, this emissions rate is well below this report's operational significance threshold of 1,100 metric tons (MT) of CO_2e per year, which would be an indication that the project's construction-related GHG emissions would be less than significant. The proposed project would also be subject to the existing CARB regulation (Title 13 of the California Code of Regulations, Section 2485), which limits idling of diesel-fueled commercial motor vehicles, and compliance with this regulation would further reduce GHG emissions associated with project construction vehicles (compliance with idling limits is required under Mitigation Measure MM-AQ-1 in Section 3, Air Quality). BAAQMD also encourages implementation of construction-related GHG reduction strategies where feasible, such as: (1) using alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment such that these vehicles/equipment comprise at least 15 percent of the fleet; (2) using local building materials such that these materials comprise at least 10 percent of all construction materials; and (3) recycling or reusing at least 50 percent of construction waste or demolition materials. None of these measures is specifically proposed as part of the project.

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[29] Bay Area Air Quality Management District, 2009. *Revised Draft Options and Justification Report*. October. Available online at http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx.

[30] Bay Area Air Quality Management District, 2011. *CEQA Air Quality Guidelines*. Updated May 2011 and May 2012. Available online at http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx.

[31] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents" or CO_2e, which present a weighted average based on each gas's heat absorption (or "global warming") potential. When CO_2 and non-CO_2 GHG emissions are considered together, they are referenced as CO_2e, which add approximately 0.9 percent to CO_2 emissions from diesel equipment exhaust (California Climate Action Registry, *General Reporting Protocol, Version 3.1,* January 2009. Available online at: http://www.climateregistry.org/tools/protocols/general-reporting-protocol.html. Accessed on August 22, 2016). See Table 1 for other construction assumptions.

While new development typically contributes to long-term increases in greenhouse gases (GHGs) from traffic increases, proposed park facilities and picnic tables are expected to be used by neighborhood residents as well as patrons of nearby commercial uses, which would minimize project-related operational traffic increases and associated GHG emissions. No other sources of GHG emissions would be associated with operation of the proposed park facilities. GHG emissions from the minimal level of new traffic generated by the proposed project (less than 60 trips per day) would generate GHG emissions that are well below this report's significance threshold of 1,100 MT CO_2e per year.[32] Therefore, the project's operational GHG emissions would be less than significant.

7b. Greenhouse Gas Reduction Plans, Policies, and Regulations

The City of Morgan Hill is currently preparing a Climate Action Plan, but does not currently have an adopted CAP. Morgan Hill's baseline emissions inventory totaled 279,407 MTCO2e in 2010. As shown in this table, the on-road transportation sector is the largest contributor of GHG emissions in the City (58 percent), with energy emissions contributing the majority of the remainder (34 percent). The energy and transportation sectors account for approximately 91 percent of total emissions.[33] The Morgan Hill 2035 General Plan Policy NRE-15.2 calls for linking land use and transportation to encourage land use and transportation patterns that reduce dependence on automobiles. The proposed park project would extend the planned Little Llagas Creek Trail (shared-use trail) for one additional block. This trail is planned to extend through the downtown area and connect to a network of existing and planned bike trails throughout the City. When complete, this trail would help to encourage alternative transportation modes to the downtown area, consistent with Policy NRE- 15.2, and thereby incrementally reduce the City's transportation-related GHG emissions.

California has passed a number of bills related to GHG emissions and the Governor has signed at least three executive orders regarding greenhouse gases. The Governor's Office of Planning and Research has not yet established CEQA significance thresholds for GHG emissions. GHG statutes and executive orders (EO) include EO B-30-15, EO S-1-07, EO S-3-05, EO S-13-08, EO S-14-08, EO S-20-04, EO S-21-09, AB 32, AB 341, AB 1493, AB 3018, SB 97, SB375, SB 1078 and 107, SB 1368, and SB X12. AB 32 establishes regulatory, reporting, and market mechanisms to reduce statewide GHG emissions to 1990 levels by 2020. EO B-30-15 and EO S-03-05 establish GHG reduction targets of 40 percent below 1990 levels by 2030 and 80 percent below 1900 levels by 2050, respectively. The Morgan Hill 2035 General Plan Policy NRE-15.1 calls for maintaining a GHG reduction trajectory that is consistent with these targets to ensure the City is consistent with statewide efforts to reduce GHG emissions. Pursuant to the AB 32 GHG reduction requirements, the California Air Resources Board (CARB) adopted its Scoping Plan, which contains the main strategies to achieve required reductions by 2020. As indicated above, the project's construction-related and operational GHG emissions would not exceed this report's significance threshold of 1,100 MT. This threshold is based on BAAQMD's 2011 CEQA Air Quality Guidelines, which in turn, relates to AB 32 GHG reduction goals as well as the City's General Plan Policy NRE-15.1. Therefore, the project's GHG emissions would not conflict with plans and policies adopted for the purpose of reducing GHG emissions, a less than significant impact.

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[32] For comparison purposes, the proposed park's size of 0.95 acres would be well below the BAAQMD's screening level size for city parks (Bay Area Air Quality Management District, *CEQA Air Quality Guidelines,* June 2010*),* whereby a proposed park exceeding 600 acres in size would have the potential to generate GHG emissions that exceed an operational significance threshold of 1,100 MT CO_2e per year.

[33] City of Morgan Hill, *Morgan Hill 2035 General Plan Draft Environmental Impact Report, Greenhouse Gas Emissions,* p. 2.7-20. January 13, 2016.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. Hazards and Hazardous Materials - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

8a. Routine Transport, Use, or Disposal of Hazardous Materials

Development of a new park use at the project site would not involve the routine transport, use, or disposal of hazardous materials. Therefore, the proposed project would not create a significant hazard to the public through the operation of a park in the City-designated open space area between West Second Street and adjoining West Third Street.

8b, 8d. Release of or Exposure to Hazardous Materials

A Phase I Environmental Site Assessment (ESA) was completed for the project site by Weber, Hayes & Associates (WHA) in August, 2016.[34] The ESA is available for public review at the City's Community Development Department, located at 17575 Peak Avenue. The following impact discussion summarizes the findings of the Phase I ESA regarding past site uses and the use of hazardous materials at the project site to evaluate the potential for hazardous materials, hazardous building materials (such as lead-based

[34] Weber, Hayes & Associates, 2016. *Phase I Environmental Site Assessment: W 3rd Street & W 2nd Street, Morgan Hill, CA 95037*. August 25.

paint and asbestos containing materials), and soil or groundwater contamination to be present. The ESA included a site reconnaissance and an interview with the property owner as well as review of regulatory databases, local agency files specific to the site, and historical documentation (including aerial photographs, topographic maps, and City Directories).

Site History and Description. The proposed project site includes two parcels (APNs 767-07-042 and 767-08-003) located at West Third Street and West Second Street, respectively, which are the two parcels being acquired from the Santa Clara Valley Water District. The City's parcel, 767-08-065, is situated between these two parcels and was considered in the review of adjoining properties.

The project site is located within downtown Morgan Hill, which was established in the late 1800s and early 1900s. Development includes the dwellings that are currently adjacent to the project site.

During the early 1900s, the area surrounding downtown Morgan Hill was largely agricultural, mostly consisting of orchards. The first record that provides a complete picture of the site is a 1939 aerial that shows the site as largely undeveloped, with the exception of a large water tower in the southwest corner of the property. In more recent decades, the area around the site became increasingly developed with residential and commercial land uses, with almost no remaining agriculture. Areas to the north, south and east of the site have maintained the same land uses, but have increased in density.

Historical aerial photographs taken between 1939 and 2012 indicate that the subject site had remained undeveloped throughout the entire period available. There may have been some encroachment on the parcel south of West Third Street by nearby housing, but exact property lines are difficult to determine in the aerials. Regardless, very little of the property is likely to be affected.

Both parcels have been undeveloped for the entire period where records were available. The earliest available record (Sanborn map[35] from 1908) depicts the parcels as undeveloped and they appear to remain that way until present day. Adjoining and vicinity land-uses to the north, east, and south have been predominantly residential and commercial throughout this period. In more recent decades, there has been an increase in the intensity of development surrounding the subject site. To the southwest, almost no development has occurred for the entire available period. The ESA review of regulatory databases and local/State agency record repositories revealed that the site has not historically stored or handled hazardous materials, or had release investigations.

The review of the local area shows that there was a history of multiple businesses located east of the project site with leaking underground storage tanks (LUSTs). Most leaks were discovered and closed in the 1990s, with only one LUST site still actively being remediated. The former BP service station is still being monitored and recent reports indicate that there is no possibility of the project site being affected. Groundwater flow direction is to the east and northeast, which makes all of these sites downgradient or sidegradient, meaning they are unlikely to affect the project site. An integrated summary and assessment of all Phase I ESA findings is presented in the WHA report, available on-line at the City's website and in the City's Public Works Department offices.

Hazardous Materials Use/Storage On-Site. The ESA included an examination of the project site for potential sources of contamination associated with on-site activities. The site inspection revealed no issues of environmental concern with the site. The only observations of note was the monitoring well, which was determined to be used for data collection as part of a Santa Clara Valley Water District flood control project and therefore not considered an environmental concern or liability.

[35] Sanborn Fire Insurance Maps are standard historical sources also typically reviewed for Phase I Environmental SiteAssessments. However, there is no Sanborn Map coverage for the proposed project site.

Naturally Occurring Asbestos. Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. However, the project site is not located in an area where naturally occurring asbestos is likely to be present[36] and therefore there is no impact associated with exposure to naturally-occurring asbestos.

8c. Hazardous Emissions or Use of Acutely Hazardous Materials

Hazardous emissions are toxic air contaminants (TACs) identified by CARB and BAAQMD. Extremely hazardous materials are defined by the State of California in Section 25532 (2)(g) of the Health and Safety Code. During project construction, only common hazardous materials such as paints, solvents, cements, adhesives, and petroleum products (such as asphalt, oil, and fuel) would be used, none of which are considered extremely hazardous materials. As discussed in Section 3, Air Quality, the only toxic air contaminant that would be emitted during construction is diesel particulate matter (DPM). The closest school is Lewis H. Britton Middle School at 80 West Central Avenue, which is located approximately 0.3 mile northwest of the site. As discussed in Section 3d, Exposure of Sensitive Receptors, operation of project-related diesel construction equipment would result in less than significant cancer and non-cancer risks on nearby sensitive receptors.

There would be no use of extremely hazardous materials or emissions of TACs once the residences are constructed and occupied. Therefore, there is no impact associated with hazardous emissions within ¼-mile of a school once the project is constructed.

8e, 8f. Airports/Airstrips

The nearest airport to the proposed project is the San Martin Airport, located approximately 4 miles to the southeast of the site. Therefore, there is no impact associated with safety hazards due to location of the project within 2 miles of a public airport or in the vicinity of a private airstrip.

8g. Emergency Plans

The project would not impair or physically interfere with an adopted emergency response or emergency evacuation plan. Therefore, the project's impact on emergency response would be less than significant.

8h. Wildland Fire Hazards

The proposed project site is not located in a fire hazard severity zone within a local responsibility area[37] or state responsibility area.[38] Therefore, there is no impact related to risks associated with wildland fires.

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[36] Department of Conservation Division of Mines and Geology, 2000. A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report. August. Available online at ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-019.pdf.

[37] California Department of Forestry and Fire Protection, *Santa Clara County Draft Fire Hazard Severity Zones in LRA*, October 4, 2007. Available online at http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php.

[38] California Department of Forestry and Fire Protection, *Santa Clara County Fire Hazard Severity Zones in SRA,* Adopted by CAL FIRE on November 7, 2007. Available online at http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

The 1.7-acre project site is nearly level, with a slight slope ranging in elevation from approximately 352 feet in the southwestern part of the site to 344 feet above mean sea level in the eastern corners of the project site. The majority of the project site is primarily covered with native trees and ruderal vegetation, with trees occurring on both sides of Little Llagas Creek and along the property perimeters. The central portion of the main park site north of West Third Street is an open field covered with non-native grasses. The northern SCVWD parcel is generally bare earth with grasses and forbs growing on the creek banks and channel. The SCVWD parcel south of West Third Street is similarly bare earth with trees along its perimeters on the creek bank and West Third Street. Storm runoff in the creek enters the park site from a culvert under West Second Street, flows southward in an open channel through the eastern portion of the site, crosses under a one-lane wooden bridge on West Third Street, and continues southward along the western side of the southern parcel (picnic area) of the proposed park toward West Fourth Street.

9a, 9f. Water Quality

Construction. The proposed project includes removal of groundcover, including non-native grasses and other vegetation, on the one-acre park site. In addition, the proposed project also includes the replacement of the West Third Street vehicle bridge with a two-lane bridge, and the repaving of the right-of-way for West Third Street to Del Monte Avenue and Del Monte Avenue from the West Third Street intersection to the Nob Hill Terrace intersection. These two road segments encompass approximately 0.7 acres (30,373 s.f.). The existing gravel parking area on West Third Street would be paved as part of this project. Excavation, filling, and other earth moving activities would be conducted within the right-of-way for connections to domestic water supply lines for two water fountains/watering stations, landscape irrigation lines, and storm drains. Also, two bioinfiltration basins would be constructed on either side of the parking lot to receive and treat storm runoff from the project site.

Without proper precautions, construction-related excavation and associated stockpiling of soil and placement of imported fills could induce erosion, and related sedimentation, resulting in degradation of water quality in the storm runoff from the site. Road construction activities would also require the use of hazardous materials that could degrade water quality without proper controls. The Drainage Plan for the proposed project is shown in **Figure 13**.

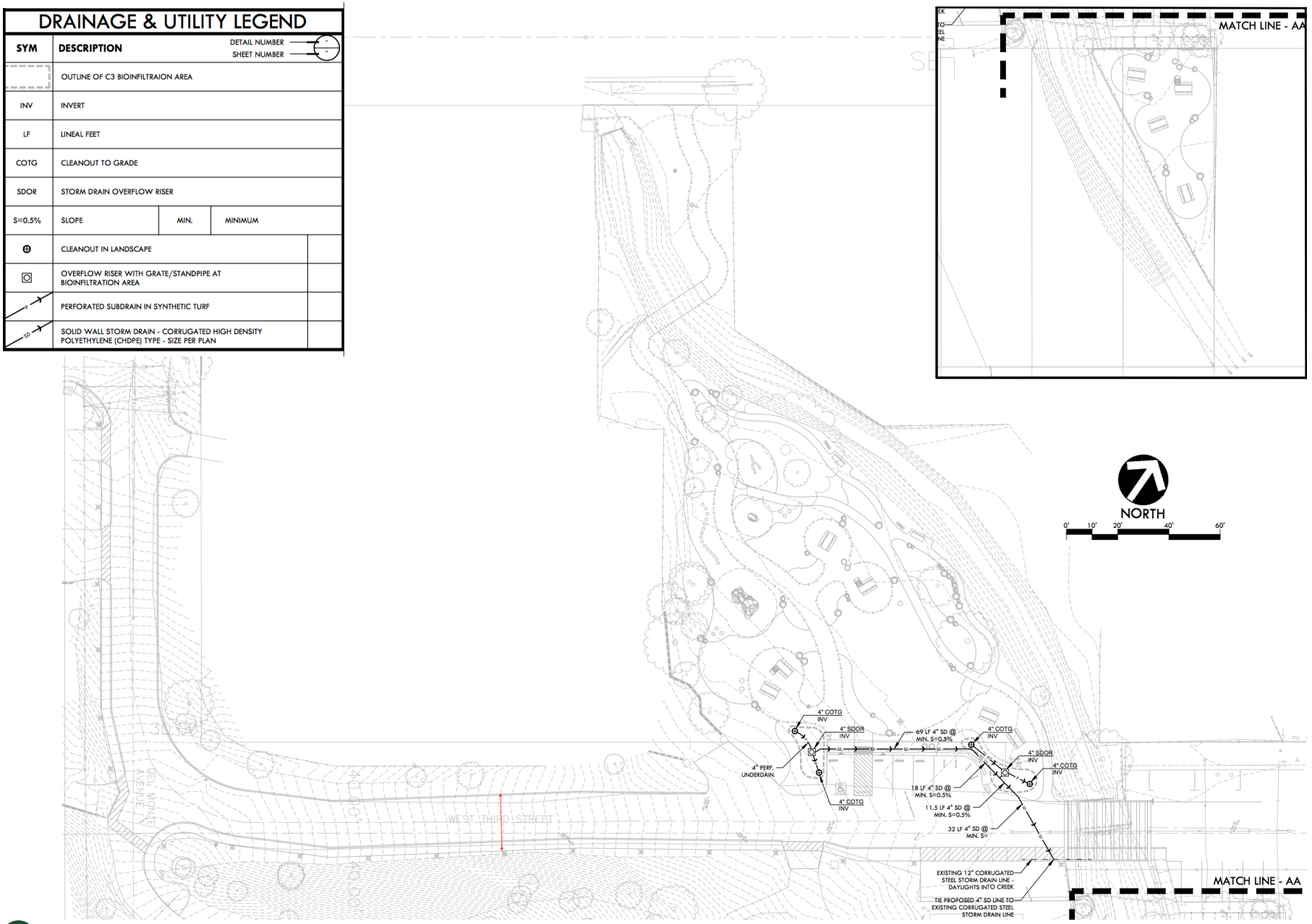
In accordance with Chapter 13.30 of the City of Morgan Hill Municipal Code (Urban Storm Water Quality Management and Discharge Control), project sponsors are required to comply with the requirements of the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Construction General Stormwater Permit) to control erosion during construction. The Construction General Stormwater Permit applies to projects that disturb one or more acres of soil, or disturb less than one acre but are part of a larger common plan of development that disturbs one or more acres. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. In accordance with this permit, the project sponsor would be required to submit a Notice of Intent and implement a Storm Water Pollution Prevention Plan (SWPPP).

The SWPPP prepared in accordance with this permit would include at least the minimum BMPs related to housekeeping (storage of construction materials (including hazardous materials), waste management, vehicle storage and maintenance, landscape materials, pollutant control); non-stormwater management; erosion control; sediment control; run-on and run-off control. Additional BMPs would be specified as needed to protect water quality from construction-related stormwater and non-stormwater discharges. As part of the SWPPP, the project applicant would implement a construction site monitoring program to demonstrate compliance with the discharge prohibitions of the General Permit; demonstrate whether non-visible pollutants are present and could contribute to an exceedance of water quality objectives; identify the need for correction actions, additional BMPs, or SWPPP revisions; and evaluate the effectiveness of the existing BMPs. The SWPPP must also be submitted to the City of Morgan Hill Engineering Division for review and approval. Chapter 13.30 of the municipal code also specifies requirements for implementation of erosion and sedimentation controls.

With implementation of the requirements of the Construction General Stormwater Permit and specific erosion and sedimentation requirements of Chapter 13.30 of the City of Morgan Hill Municipal Code, water quality impacts related to erosion and a release of hazardous materials during construction would be less than significant.

Post-Construction. Most of the 1.7-acre project site is undeveloped and most of the stormwater infiltrates to the groundwater through the soil and along the channel of West Little Llagas Creek. Under the proposed project, new impervious surface area would be created from the replacement of paving on West Third Street and Del Monte Avenue, expansion of the vehicle bridge, and new paving for the park

FIGURE 13: DRAINAGE PLAN



Source: Verde Design, *Construction Drawings for Little Llagas Creek Park, 60% Review Submittal*, June 9, 2016.

parking lot. In all, impervious surfaces would comprise 32,153 s.f. New paving for the parking lot would constitute approximately 4 percent of the post-development park site. This increase in impervious surfaces could decrease the amount of stormwater infiltration and increase flows to the storm drain on the south side of West Third Street, potentially increasing the discharge of stormwater pollutants to the storm sewer (and ultimately the Pajaro River) and the potential for erosion in West Little Llagas Creek where the stormwater is discharged. Post-construction stormwater runoff from the proposed project would be managed in accordance with Resolution R3-2013-0032 issued by the California Regional Water Quality Control Board, Central Coast Region.[39] This resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region. The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone,depending on the size of the development project. Because the proposed project site is located in an area classified as WMZ-1, and would involve the construction of 32,153 s.f. of impervious surfaces, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the stormwater runoff using a Low Impact Development (LID) treatment system such as biofiltration. In WMZ-1, the treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

To achieve these objectives, the project includes the construction of two bioinfiltration basins for the control of storm runoff volumes and protection of water quality in runoff from the park site. With implementation of the requirements adopted by Resolution R3-2013-0032, water quality impacts related to violation of water quality standards or waste discharge requirements would be less than significant once the project is constructed.

Existing Well. The Santa Clara Valley Water District has installed a groundwater monitoring well on the northern portion of the project site and this facility would not be directly affected by proposed project development.

9b. Groundwater Resources

The proposed project is located in the Llagas Subbasin of the Gilroy-Hollister Groundwater Basin which has an area of 87 square miles and is used by the City of Morgan Hill as a water supply.[40,41] However, the project would not result in depletion of groundwater supplies in this subbasin because the project does not propose to install wells or otherwise use groundwater beyond what is supplied by the City.

The project includes the construction of 30,373 s.f. of replacement road pavement and 1,780 s.f. of new impervious surface for the parking lot. While the increased impervious surface of the parking lot could reduce the infiltration of stormwater at the site, the resulting decrease in groundwater recharge in the project area would be considered negligible. Further, as discussed in section 9a, the project would construct biorinfiltration basins to infiltrate 95 percent of the stormwater runoff from the project site in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. With

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[39] Resolution No. R3-2013-0032 is available online at http://www.waterboards.ca.gov/centralcoast/water_issues/programs/stormwater/docs/lid/lid_hydromod_charette_index.shtml

[40] City of Morgan Hill, 2013. *Morgan Hill 2035, Existing Conditions White Papers, Environmental Resources and Hazards. Public Review Draft*. May 16. Available at http://morganhill2035.org/wp-content/uploads/2013/06/4_EnvResourcesHazards.pdf.

[41] California Department of Water Resources, 2004. *California's Groundwater Bulletin 118, Central Coast Hydrologic Region, Gilroy-Hollister Groundwater Basin, Llagas Subbasin*. February 27. Available at http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/3-3.01.pdf.

construction of the proposed stormwater controls, the amount of stormwater recharged to the groundwater would be similar to existing conditions and any reduction in groundwater recharge would be minimal.

Based on the above analysis, impacts related to depletion of groundwater resources and interference with groundwater recharge would be less than significant.

9c, 9d, 9e. Drainage

The project site does not include any surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons on the site. West Little Llagas Creek is located along the site's eastern perimeter and extends through the park site from its northern to southern boundary.

The project design specifies the construction of trails, paths, and walkways that would be covered with decomposed granite or mulch, and resilient (pervious) surfaces in play areas. Other facilities include paly equipment such as climbing rocks, balance beams and steps, etc. The stream channel and banks would remain in their present condition. The project plans also specify the installation of a foot-bridge across the creek in the northern part of the park site, near West Second Street. The Planting Plan for the project would include the planting of native species ground cover that would replace non-native grasses.

Drainage on the project site would continue to infiltrate on-site, with storm runoff volumes flowing into the project's bioinfiltration basins rather than across West Third Street and into a 12-inch corrugated steel storm drain line that discharges to West Little Llagas Creek. The project would promote on-site treatment and storage of runoff. There would be no impact related to alteration of drainage patterns by altering the course of a stream in a manner that would cause erosion or flooding on or off-site. Therefore, impacts related to these topics would be less than significant.

9g, 9h, 9i, 9j. Flood Hazards

The proposed project site is located within the Downtown Core Area of the City and future development in downtown Morgan Hill is guided by the City's Downtown Specific Plan as well as the City's 2035 General Plan. The City's Storm Drain Master Plan does not call for any improvements to the existing storm drain system in Downtown, except for the Upper Llagas Creek Flood Protection Project (also known as PL566). PL566 is intended to provide flood protection for the Cities of Gilroy and Morgan Hill and the unincorporated portion of Santa Clara County known as San Martin. The project will consist of a series of channels, box culverts, and bridges designed to protect the floodplain from a one-percent flood. The southerly, downstream portion has been completed which protects the City of Gilroy. The northerly upstream portion that will someday protect Morgan Hill is not complete due to a lack of funding.

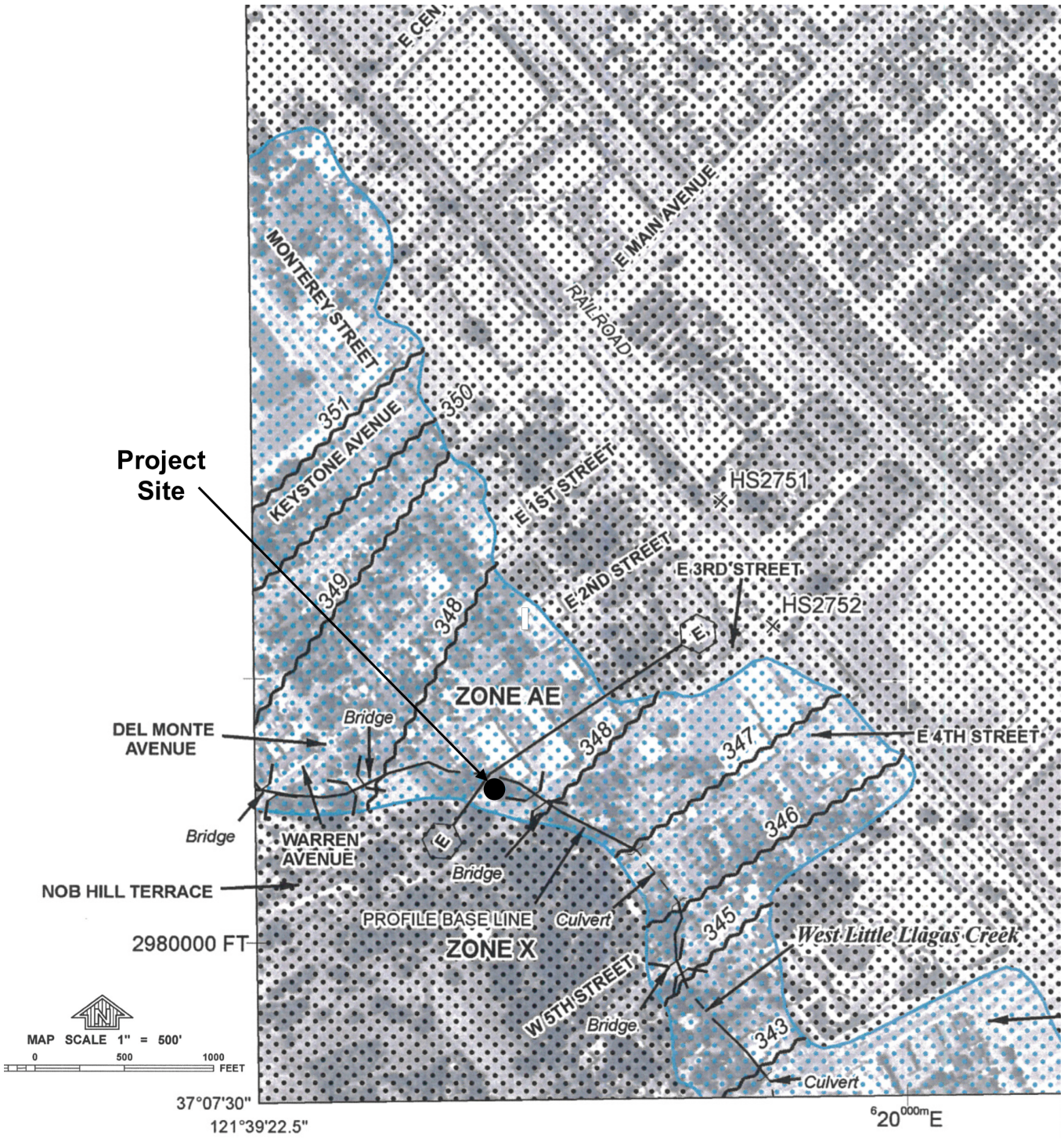
100-Year Flood. The park project site is located in a flood hazard area identified on the Flood Insurance Rate Map[42] for West Little Llagas Creek. **Figure 14** shows the project site's FEMA Flood Zone. These areas are identified as a Special Flood Hazard Area (SFHA) and are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

The portion of West Third Street adjoining the park site is also located within SFHA. However, with the rise in topography immediately west of the project site, the majority of West Third Street and all of Del Monte Avenue proposed for improvement is situated outside of the SFHA and not subject to 100-year flood hazard.

As shown in Figure 14, potential floodwater elevations of 348 feet (msl) would extend eastward from the park site's western perimeter to Monterey Road in downtown Morgan Hill. The Downtown Specific Plan

[42] Federal Emergency Management Agency, 2009. Flood Insurance Rate Map: Santa Clara County, California and Incorporated Areas (Map Number 06085C0444H). May 18.

FIGURE 14: FEMA FLOOD ZONES



Source: Federal Emergency Management Agency (FEMA), *Flood Insurance Rate Map, Santa Clara County*, Panel 444 of 830, Map Number 06085C0444H, May 18, 2009.

identifies the site's open space as an area that should remain free of urban development to accommodate future flood events. The Specific Plan that when the PL566 project is implemented, this parcel could become a passive pocket park and pedestrian amenity with a strong connection to the creek improvement, perhaps with interpretive signage about the PL566 Upper Llagas project purposes of flood control and riparian habitat. As a result, the proposed use of the project site for passive recreational use would be consistent with the City's plans for flood protection measures related to potential flooding hazards in the downtown area. With the incorporation of these requirements as part of the project design, the potential flooding hazard of the proposed project would be less than significant.

Inundation by Dam Failure. Dams located near Morgan Hill include Anderson Dam and Chesbro Dam. According to the Open Space and Conservation Element of the City's General Plan and the Association of Bay Area Governments (ABAG), almost all of the valley floor terrain in Morgan Hill is within the area that would be inundated if these dams were to fail with reservoirs at full capacity. The project site is located in the dam failure inundation area of Anderson Dam.[43] The potential for flooding from dam failure on the site is considered to be negligible to very low and, consequently, impacts related to flooding as a result of failure of a levee or dam would be less than significant.

Inundation by Seiche, Tsunami, or Mudflow. The project site is located at an elevation of approximately 344 to 352 feet above mean sea level, more than 17 miles inland from the Pacific Ocean coastline, and separated from the coast by mountainous terrain; therefore, there would be no risk associated with tsunamis which are large sea waves. Seiches are standing waves caused by large-scale, short-duration phenomena (e.g. wind or atmospheric variations or seismic activity) that result from the oscillation of confined bodies of water (such as reservoirs and lakes) that may damage low-lying adjacent areas as a result of changes in the surface water elevation. The project site is not located in the vicinity of any confined water bodies and would therefore not be subject to a seiche. Based on this, there would be no impact related to exposure of people or structures to significant risk of loss, injury, or death involving seiche, or tsunami. Risks associated with landslide-induced mudflows are discussed in Geology and Soils.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Land Use and Planning - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

10a. Divide an Established Community

The Project Description presents a description of the land use designations and proposed improvements for the 1.7-acre project site. The subject property consists of three parcels that have been historically used

[43] City of Morgan Hill, 2015. *General Plan Open Space and Conservation Element.* January 9. Available online at http://www.morgan-hill.ca.gov/DocumentCenter/View/15915.

for open space purposes. Overall, the proposed project site includes approximately one acre of open space area, and portions of West Third Street and Del Monte Avenue.

In brief, the project site has a 2035 General Plan land use designation (2035 General Plan Land Use Map, 2016) of Open Space. Zoning for the project site is R-2 3,500 Medium-Density Residential District, similar to residential zoning and development surrounding the site. This level of potential residential use would be inconsistent with the General Plan's Open Space designation, which would allow single-family dwellings, residential care facilities, and secondary dwellings on lots of five acres or larger.

The project site is surrounded by single-family residential development, and commercial uses. The park project would be consistent with any proposed zoning change from a R2-3,500 district to Open Space district (City of Morgan Hill Municipal Code Chapter 18.08.020 B. Permitted uses – Public parks).

The proposed park includes a trail and paths that connect West Second Street with West Third Street, and to a small picnic area south of West Third Street. Additionally, the recreational facilities in the proposed park would be accessible to residents to the north and south in the project area. The proposed park use would provide a connection between downtown neighborhoods. Consequently, the proposed project would not divide an established community, but rather complement and connect the surrounding established neighborhoods, a beneficial impact of the project.

10b. Project Consistency with Land Use Plans and Policies

The project is subject to policies of the Morgan Hill 2035 General Plan and the Downtown Specific Plan.

2035 General Plan. The project is consistent with relevant policies of the General Plan as discussed below:

General Plan Policies	Project Consistency
Community and Neighborhood Form Element *Policy CNF-14.3: Downtown Specific Plan. Support the implementation of the Downtown Specific Plan.*	Consistent. The proposed park project promotes the land use plans identified in the Downtown Specific Plan. Please see discussion in following section.
Healthy Community Element *GOAL HC-3: Usable, complete, well-maintained, safe, and high-quality activities and amenities, including active and passive parks and recreational facilities, community gardens, and trails that are accessible to all ages, functional abilities, and socio-economic groups.* *Policy HC-3.5: Mini-Parks. Avoid developing public mini-parks, which have high maintenance costs and limited recreational value, unless they serve a specific function, such as a downtown plaza.*	Consistent. The project plans provide for the improvement of an open space area with passive recreational facilities that are accessible to all members of the community, while enhancing the connection between adjoining neighborhoods in the downtown area. While the one-acre park site meets the City's standards for a "mini-park", the planned facilities are limited to trails, paths, picnic tables, and some play equipment. The proposed park serves at least two specific functions: the provision of recreational opportunities on a site that is subject to flooding hazards, and the establishment of a trail segment that would be part of the City's overall trail plan.
Policy HC-3.14: Streamside Trails. Work in partnership with the Santa Clara Valley Water District to establish easements and develop trails and linear parks along creeks and drainage channels, connecting parks, regional trails, schools, library, and other community facilities and ensuring that natural resources are protected and restored. *Policy HC-3.25: Parkland Acquisition. Actively pursue acquisition of appropriate parkland for recommended*	Consistent. The City is in the process of acquiring two surplus parcels of land from the Santa Clara Valley Water District to facilitate the establishment of a trail and paths along West Little Llagas Creek and the preservation of open space lands needed to accommodate a floodway that contributes to the protection of downtown properties subject flooding hazards. The proposed park project would protect an open channel segment of this creek and, through planting native species, help restore natural resources

General Plan Policies	Project Consistency
parks, trails and facilities, and to meet existing and future recreation needs.	on the site while providing passive recreational facilities for the downtown area.
Transportation Element *Policy TR-9.12: Trails and Flood Control. Promote new trails and extend existing trails in conjunction with flood control efforts.*	Consistent. The proposed project would create a new trail that complements the need to retain the project site as open space for flood protection purposes in the downtown area of Morgan Hill.
Natural Resources and Environment Element *Policy NRE-5.6: Flood Control Projects. Where flood control projects are needed to protect existing development, minimize disruption of streams and riparian systems, maintaining slow flow and stable banks through design and other appropriate mitigation measures. (South County Joint Area Plan 15.08)*	Consistent. The proposed park project would have minimal effects on the riparian zone of West Little Llagas Creek. No trees in the riparian zone would be removed and park improvements would be limited to decomposed granite and mulch paths set back from the creek's top of bank.
Policy NRE-6.6: Use of Native Plants. Encourage use of native plants, especially drought-resistant species, in landscaping.	Consistent. The proposed project includes a planting plan that incorporates native plant species into landscaping proposed for the park site. Restoration efforts include plantings appropriate for streamside properties.

Downtown Specific Plan. In addition to the goals and policies of the Morgan Hill 2035 General Plan, the proposed project site is located within the City's Downtown Specific Plan area. The Downtown Specific Plan provides guidance for the ongoing development of the City's Downtown area through the establishment of development goals and supporting policies to assist the community in achieving those goals. The Downtown Specific Plan states that future development should focus on promoting pedestrian activity, increasing the Downtown residential population, and increasing shopping and employment opportunities with appropriately designed spaces throughout Downtown. The Specific Plan General Plan land use designations and Zoning Ordinance classifications reflect the development needs of Downtown Morgan Hill.

The Santa Clara Valley Water District and the City of Morgan Hill have created preliminary plans for flood control improvements along Upper Llagas Creek through the downtown area. Due to the right-of way constraints and underground locations, providing a Downtown creekside trail may not be feasible from Second to Fourth Street, from Fifth Street to Dunne Avenue, or along Monterey Road and Second Street. Right-of-way widths to the north and south of those Downtown areas are less restrictive and a trail system is planned for development in these areas. Where the trail connection through Downtown is not feasible along the creek, signs would be posted at the north and south trailheads to direct pedestrians and bicyclists to sidewalks and bike routes or "sharrows" through Downtown, and then connecting to the other trailheads.

A majority of the project's West Third Street parcel would be needed to accommodate the PL566 flood control project improvements. The parcel is planned to be used as passive open space with on-street parking. With implementation of the PL566 project, this parcel is planned become a passive pocket park and pedestrian amenity with a strong connection to the creek improvements, perhaps with interpretive signage about the PL566 Upper Llagas project purposes of flood control and riparian habitat.

The Downtown Specific Plan also specifies that, to the extent feasible, developments near Upper Llagas Creek should follow the "Guidelines and Standards for Land Use Near Streams" (Santa Clara Valley Water District, 2006). This includes, but is not limited to, restricting development from the top of bank and maintaining a 2 to 1 structural slope stability requirement. Consistent with the Guidelines requirements for trail development near streams, the proposed park development includes mulch-covered paths that have been set back from the top of bank along West Little Llagas Creek.

10c. Conflict with Habitat Conservation or Natural Community Conservation Plans

The project site is within the SCVHP permit area, and urban development is a "Covered Activity" under the plan. Land cover in the Project site is classified as Urban – Suburban. SCVHP land cover fees apply to the portion of the park site that is planned for use as a picnic area immediately south of West Third Street. Please see Section 4f., Habitat Conservation Plans, for a detailed discussion of the Habitat Conservation Plan requirements.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Mineral Resources - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

11a, 11b. Mineral Resources

The Morgan Hill General Plan does not identify any regionally or locally important mineral resources within the City of Morgan Hill.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Noise - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Existing Noise Environment

Noise-Sensitive Receptors. Certain land uses are particularly sensitive to noise, including residences, schools, hospitals, rest homes, long-term medical and mental care facilities, places of worship, and passive open space/recreational areas. Residential areas are also considered noise sensitive during the

nighttime hours. Existing sensitive receptors located adjacent to the site include single-family residences located adjacent to the site's southwestern and northeastern boundaries. Commercial uses are located adjacent to the site's northwestern and southeastern boundaries.

Existing and Future Noise Levels. The primary sources of noise at the project site are traffic on Monterey Road, which is located approximately 300 feet to the east and a row of commercial buildings separate the project site from this street. The project site has frontage on West Third Street and West Second Street, but relative low traffic levels on these streets do not contribute substantial traffic noise levels. Noise measurements collected near Monterey Road and West Dunne Avenue (approximately 200 feet from Monterey Road, approximately 1,000 feet south of the project site) indicate that noise levels are currently less than 60 dBA (L_{dn}).[44] Future noise contours presented in the Morgan Hill 2035 General Plan's Safety, Services, and Infrastructure Element (Figure SSI-7) indicate that noise levels at the project site and its vicinity will continue to be less than 60 dBA (L_{dn}) in 2025.[45]

Applicable Noise Standards and Significance Criteria

Morgan Hill General Plan Noise Element. Table SSI-1 of the Morgan Hill 2035 General Plan's Safety, Services, and Infrastructure Element present acceptable exterior noise level standards, utilizing the Day-Night Level (L_{dn} or DNL) 24-hour descriptor to define acceptable noise exposures for various land uses. These noise standards indicate that exterior noise levels up to 70 dBA (L_{dn}) is considered "normally acceptable" for playgrounds and neighborhood parks.[46] Between 67 and 75 dBA (L_{dn}), the noise environment is considered "normally unacceptable" and these uses are discouraged. Above 72 dBA (L_{dn}), noise levels are "clearly unacceptable" and these uses should not be undertaken.

12a. Noise Compatibility of Proposed Uses

Based on nearby noise measurements and future noise contours in the Morgan Hill 2035 General Plan's Safety, Services, and Infrastructure Element (Figure SSI-7), existing and future noise levels (less than 60 dBA, L_{dn}) are considered acceptable for the proposed neighborhood park use (no noise compatibility impact).

12b. Groundborne Noise and Vibration

Project construction would involve limited use of heavy construction equipment such as a grader, loader, or backhoe, and there would be minimal vibration generated by such equipment at adjacent structures, which would operate at least 10 feet or more from these structures. At 10 feet, vibration levels generated by such construction activities[47] would not exceed the 0.5 in/sec PPV threshold level for cosmetic damage to structures.[48] Therefore, vibration levels associated with operation of any heavy construction equipment would be less than significant.

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[44] Edward L. Pack Associates, Inc., *Noise Assessment Study for the Planned "Oak Creek" Single-Family Subdivision, West Dunne Avenue, Morgan Hill*. Project No. 47-014. March 23, 2015. Available for public review at the City of Morgan Hill, Public Works Department at 17575 Peak Avenue, Morgan Hill, CA.

[45] City of Morgan Hill, *Morgan Hill 2035 General Plan, Figure SSI-7, Future Noise Contours*. p. SSI-12. Adopted July 27, 2016.

[46] Ibid., *Table SSI-1, State of California Land Use Compatibility Guidelines for Community Noise Environments*. p. SSI-13.

[47] Bulldozers and loaded trucks typically generate vibration levels on the order of 0.003 to 0.089 inches per second, peak particle velocity (in/sec PPV) at 25 feet (California Department of Transportation, 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*. p. 26. June. Available online at http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf.) At 10 feet, such vibration levels would increase to 0.012 to 0.353 in/sec PPV, which is well below the 0.5 in/sec PPV threshold.

[48] Ibid., *Table 19, Guideline Vibration Damage Potential Threshold Criteria*, p. 27.

Groundborne noise refers to a condition where noise is experienced inside a building or structure as a result of vibrations produced outside of the building and transmitted as ground vibration between the source and receiver. Groundborne noise can be problematic in situations where the primary airborne noise path is blocked, such as in the case of a subway tunnel passing in close proximity to homes or other noise-sensitive structures. However, proposed noise and vibration-generating construction activities associated with the proposed project would involve techniques that primarily generate airborne noise and surface vibration. Any potential groundborne noise from construction activities would be imperceptible, and therefore, would have no impact.

12c. Long-term Noise Increases

Proposed development of park facilities on the project site include addition of picnic tables and play facilities. While picnic and play activities typically do not generate substantial noise levels, these new sources of noise could be noticeable at the two adjacent residences. If a portable stereo were played in the picnic/play area, it could be audible in adjacent areas depending on the loudness and orientation of the stereo. Noise generated by these sources are not expected to significantly increase existing ambient noise levels (L_{dn}) in nearby areas, given the short-term nature of such activities and restriction of the proposed park to daytime hours only (park hours are proposed to be sunrise to sunset (or 6 a.m. to 10 p.m.). With respect to portable stereos, Section 8.28.040(K) of the Morgan Hill Municipal Code makes the following noises unlawful: (1) use of "any radio receiving set, musical instrument, phonograph or other machine or device" in such manner as to disturb the peace, quiet and comfort of the neighborhood inhabitants; and (2) operation of any such sets between 11 p.m. and 7 a.m. in such manner as to be plainly audible at 50 feet. Since proposed picnic tables are located 60 feet or more from the closest residence to the west, this noise ordinance restriction on music devices would help to maintain acceptable noise levels at the adjacent residences. Although a mitigation measure for the provision of solid fencing along southwestern property boundary (contiguous to the residence) would further help reduce the potential for noise disturbance at this residence from playground and picnic activities, the resident of the adjoining property has requested that no fencing be installed along this property boundary as such fencing would negatively affect the view from this residence. The residence located to the northeast of the project site already has fencing and there are no picnic benches or play facilities located adjacent to that residence. Therefore, compliance with restrictions specified in Section 8.28.040 of the Municipal Code would ensure that noise conflicts be less than significant.

Policy SSI-8.5 of the Morgan Hill 2035 General Plan's Safety, Services, and Infrastructure Element defines the following traffic-related noise level increases associated with new projects as significant, if: (a) the noise level increase is 5 dBA (L_{dn}) or greater, with a future noise level of less than 60 dBA (L_{dn}); or (b) the noise level increase is 3 dBA (L_{dn}) or greater, with a future noise level of 60 dBA (L_{dn}) or greater. As indicated above, existing and future noise levels in the project vicinity are less than 60 dBA (L_{dn}) and traffic noise levels would need to increase by 5 dBA to be considered significant. West Third Street, Del Monte Avenue, and West Second Street are minor streets and subject to low levels of traffic (460 to 1,200 trips per day[49]). Based on trip generation estimates presented in Section 16, Transportation and Traffic (below), project-related traffic increases on these roads (up to approximately 60 trips per day) would represent a seven percent increase in traffic on West Third Street if all project-related traffic used this street. Such an increase would result in traffic noise increases well below the 5-dBA threshold. Therefore, project-related traffic noise increases would be less than significant. It is also noted that these picnic tables would be used by neighborhood residents as well as patrons of nearby commercial uses, and therefore, would not generate new trips.

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[49] City of Morgan Hill, *Morgan Hill 2035 General Plan Draft Environmental Impact Report, Appendix D, Transportation and Traffic Data, Level of Service Computation Sheets for Intersections #164 (Del Monte Avenue and Main Avenue), #3343 (Monterey Road and Second Street), #3471 (Monterey Road and Third Street)*. January 13, 2016.

12d. Short-Term Noise Increases

Section 8.28.40 of the Morgan Hill Municipal Code[50] prohibits construction activities (including operation of any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist or other appliance) between 8:00 p.m. and 7:00 a.m., Monday through Friday, and between 6:00 p.m. and 9 a.m. on Saturdays. Construction activities may not occur on Sundays or federal holidays. The Morgan Hill Municipal Code does not specify any short-term noise level limits.

Project construction would result in temporary short-term noise increases due to the operation of heavy equipment. Project construction would involve limited use of heavy construction equipment such as a grader, loader, or backhoe and this type of equipment would generate noise levels in the range of 78 to 85 dBA (L_{eq}) at 50 feet from the source.[51] The potential for construction-related noise increases to adversely affect nearby residential receptors would depend on the location and proximity of construction activities to these receptors. Temporary disturbance (e.g., speech interference) can occur if the noise level in the interior of a building exceeds 45 to 60 dBA.[52] To maintain such interior noise levels, exterior noise levels at the closest residences (with windows closed) should not exceed 80 dBA and this exterior noise level is used as a significance threshold. There is an existing residential receptor located approximately 50 feet to the west of the area where most construction activity would occur (in the southern portion of the site where picnic tables and playground facilities would be construction). Temporary increases in noise due to operation of paving equipment would also occur at adjacent residential receptors during proposed paving of West Third Street and Del Monte Avenue At 50 feet, construction noise from such heavy equipment would range from 78 to 85 dBA, and such noise increases would approach and exceed the 80-dBA threshold, indicating that these temporary noise increases, while intermittent and only occurring when heavy equipment is being operated adjacent to a receptor, would be noticeable, a significant temporary noise impact. Compliance with ordinance time limits as specified in Standard Measure NV-2 in addition to implementation of noise controls specified in Mitigation Measure NOI-1 would help to reduce this temporary impact to less than significant, particularly given the limited duration of equipment operation adjacent to any given receptor.

12e. Airport-Related Issues

The project site is not located within an airport land use plan. There is no public airport, public use airport, or private airstrip located within two miles of the project site. The proposed project would not expose people residing or working in the area to excessive noise levels. Therefore, there would be no airport-related noise impact.

Standard Measure (SM) – Noise and Vibration (NV)

The following standard measure will reduce potential construction-related noise impacts to nearby sensitive receptors:

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[50] Available online at https://www.municode.com/library/ca/morgan_hill/codes/code_of_ordinances?nodeId=TIT8HESA_CH8.28NO_8.28.040ENUNNO.

[51] U.S. Department of Transportation, Federal Highway Administration, *Construction Noise Handbook, Table 9.1, RCNM Default Noise Emission Reference Levels and Usage Factors*. Available online at http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm.

[52] In indoor noise environments, the highest noise level that permits relaxed conversation with 100% intelligibility throughout the room is 45 dBA. Speech interference is considered to become intolerable when normal conversation is precluded at 3 feet, which occurs when background noise levels exceed 60 dBA (U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (Condensed Version)*, 1974).

SM NV-1: *Construction activities shall be limited to the hours between 7:00 a.m. and 8:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. No construction activities should occur on Sundays or federal holidays (Consistent with Section 8.28.040 of the Morgan Hill Municipal Code).*

Mitigation Measures (MM)

In addition to SM NV-2, the following noise attenuation measures shall be implemented as conditions of approval to reduce the significant noise impacts on adjacent residential receptors to a less than significant level:

MM-NV-1: ***Implement Construction Noise Controls.*** *Quiet or "new technology" equipment should be used wherever feasible. The greatest potential for noise abatement of current equipment should be the quieting of exhaust noises by use of improved mufflers. Therefore, it is recommended that all internal combustion engines used at the project site be equipped with a type of muffler recommended by the vehicle manufacturer. In addition, all equipment should be in good mechanical condition so as to minimize noise created by faulty or poorly maintained engine, drive-train and other components. Construction noise should also be mitigated by the following measures:*

- *All diesel-powered equipment should be located more than 200 feet from any residence to the extent feasible if the equipment is to operate for more than several hours per day.*
- *Stockpiled materials should be located so that they can help block construction noise at nearby sensitive receptors.*
- *Noise reduction benefits could also be achieved by appropriate selection of equipment utilized for various operations (subject to equipment availability and cost considerations). The following measures are recommended to reduce noise impacts on nearby residents:*
  - *<u>Earth Removal</u>: Use scrapers as much as possible for earth removal, rather than the noisier loaders and hauling trucks.*
  - *<u>Backfilling</u>: Use a backhoe for backfilling, as it is less costly and quieter than either dozers or loaders.*
  - *<u>Ground Preparation</u>: Use a motor grader rather than a bulldozer for final grading.*
  - *<u>Building Construction</u>: Power saws should be shielded or enclosed where practical to decrease noise emissions. Nail guns should be used where possible as they are less noisy than manual hammering.*

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Population and Housing - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

13a. Growth-Inducement Impacts, 13b, 13c. Displacement of Housing or Residents

The proposed park development would encompass the construction of a trail, paths, walkways, picnic tables, and play equipment. The park improvements would not include restroom facilities. The project would not include the development of new homes and businesses. The project site is used as open space and contains no housing and, therefore, would not result in the displacement of substantial numbers of existing housing or people, nor require replacement housing elsewhere.

In addition to the park improvements, the project proposes to repave portions of West Third Street and Del Monte Avenue, and replace the West Third Street bridge across West Little Llagas Creek. Project plans specify the removal of the one-lane bridge and replacement with a two-lane bridge. Proposed improvements on West Third Street would extend to the existing park parking area. The removed parking lot gravel would be replaced with asphalt paving, striping for three standard parking spaces and one ADA parking space. The replacement parking lot would include bike racks. The proposed roadway improvements would replace existing paving and continue to provide access to the project area. The project would not extend existing roads to undeveloped areas, indirectly inducing substantial population growth. Consequently, the proposed park project would have no impacts on population or housing growth.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Public Services -				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

14a. Public Services

The project would incrementally increase demand for fire and police protection services. The City of Morgan Hill contracts with CAL FIRE (State Department of Forestry and Fire Protection) for fire protection services. There are three fire stations located within the City boundaries: El Toro Station, located at 18300 Monterey Road; Dunne-Hill Station, located at 2100 East Dunne Avenue; and the CAL FIRE station at 15670 Monterey Road. The project site is located approximately 1.3 miles south of the El Toro station, approximately 1.3 miles north of the CAL FIRE station, and approximately 2.1 miles west of the Dunne-Hill Station. The project site is within the five-minute response boundary of all three of these fire stations. Response time to the project site is approximately four minutes.

The Morgan Hill Police Department provides police protection services to incorporated areas in the project vicinity. The project site is located within downtown Morgan Hill and served by the Department's normal patrol routes. The introduction of passive recreational facilities to the site would not be expected to cause an increase in the need for police oversight. It should be noted that the proposed project includes installation of a security camera to monitor the park for enhanced public safety.

The Morgan Hill Unified School District (MHUSD) operates public education facilities that serve the project site and surrounding area. The City of Morgan Hill is served by eight elementary schools, three middle schools, two high schools, one continuation school, and one community adult school. Current student population in the District is 9,000[53] pupils. The proposed park project would not generate new students.

The proposed park project would not result the need for additional expanded or new recreational or other governmental facilities. The propose park project would provide additional recreational opportunities that would likely reduce service demands on other City recreational facilities in the short term, a beneficial impact of the project.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Recreation -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

15a. Demand for Recreational Facilities

Proposed park development on one acre of the 1.7-acre project site would provide new recreational opportunities for the community, and especially for the immediately adjoining downtown neighborhoods. The addition of passive park facilities would not increase the use of existing neighborhood and regional parks or other recreational facilities. To the extent that the proposed project provides additional recreational facilities, the new park would potentially reduce short-term service demands on other City facilities, a beneficial impact of the proposed project.

15b. Impacts Related to Construction of Recreational Facilities

The project would include the development of recreational facilities requiring the construction of recreational facilities that could have adverse physical effects on the environment. The City is proposing the development of the park site on West Third Street to serve existing and future residents and visitors in Morgan Hill. The development of the proposed project could result in adverse physical effects on the environment and these potentially adverse effects would be significant under CEQA guidelines. The extent of potentially significant adverse effects of the park project on environmental conditions is the subject of this Initial Study, with detailed discussion of such impacts and required mitigation measures discussed in the various appropriate sections herein.

The adoption and implementation of the mitigation measures discussed in this Initial Study would reduce the potentially adverse environmental effects of the proposed park project to less than significant levels.

[53] California Department of Education, Educational Demographics Unit, 2015. Available online at http://dq.cde.ca.gov/dataquest/dataquest.asp.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Transportation/Traffic - Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

16a, 16b, 16e. Impacts on the Circulation System, Conflicts with Congestion Management Program, and Traffic Hazards

The proposed project would extend the planned Little Llagas Creek Trail, provide neighborhood play facilities, and install ten picnic tables at the project site. Proposed addition of picnic tables could generate up to 60 trips per day.[54] However, proposed park facilities and picnic tables are expected to be used by neighborhood residents as well as patrons of nearby commercial uses (i.e., people are not expected to drive to this park expressly to use the picnic tables or play facilities but would instead likely live in the neighborhood or already shopping in the downtown area). Therefore, it is expected that the project's trip generation would be less than 60 trips per day. According to guidelines published by the Santa Clara Valley Transportation Authority (VTA),[48] the congestion management agency for Santa Clara County, a detailed traffic study is required only if the project is estimated to generate 100 or more peak hour trips. The City has adopted its own guidelines that are generally consistent with the County. For projects generating less than 100 peak hour trips, local jurisdictions typically require focused studies addressing site access and circulation issues. The proposed project's trip generation of up to 60 trips per day (and an estimate PM peak hour rate of approximately 6 trips) would be well below the City's 100 peak hour trips threshold level and therefore, a detailed traffic study was not required.

[54] Institute of Transportation Engineers, *ITE Trip Generation Manual, 8th Edition,* 2008.

West Third Street, Del Monte Avenue, and West Second Street are minor streets with traffic volumes well below their capacities (460 to 1,200 trips per day[55]). Project-related traffic increases on these roads (up to approximately 60 trips per day) would represent a seven percent increase in traffic on West Third Street if all project-related traffic used this street. Such an increase on adjacent and nearby roads and intersections is expected to have a minimal impact. There is adequate available traffic capacity on adjacent and nearby streets and intersections to accommodate project-related traffic increases, and no significant impacts are anticipated. Project implementation would include repaving streets adjacent to or near the park (West Third Street and Del Monte Avenue) and adding curbs, gutters, and asphalt sidewalks to these street segments, which would improve traffic capacity and safety. However, there would be a short-term disruption of traffic during repaving activities, which is considered less than significant because of its temporary nature.

Project implementation would not pose any new traffic hazards since no roadways would be extended or created and no new intersections would be created. At present, there is a gravel parking area located along the north side of West Third Street on the project site and vehicles currently park in this area (perpendicular to the street). With project implementation, this parking area would be paved and parking spaces delineated. The size of the parking area would be reduced, but on-street parking would continue to be available along West Third Street. The Downtown Specific Plan does not specify parking requirements for park uses. By paving and striping parking spaces along the site's frontage on the north side of West Third Street, the project would provide additional on-street public parking spaces. As indicated above, the project is not expected to increase parking demand significantly since project facilities are expected to be used by neighborhood residents as well as patrons of nearby commercial uses. Therefore, the project's parking demand would be "captured" by the parking demand generated by existing and future residential and commercial uses in the project vicinity.

16c. Air Traffic Patterns

The project site is not located within an airport land use plan, nor is there a public airport, public use airport, or private airstrip located in the project vicinity. The San Martin Airport, approximately 3.8 miles to the southeast of the project site, is the closest airport to the property. Therefore, the project would have no impact on air traffic patterns, would not directly increase air traffic levels, nor would there be any change in location that results in substantial safety risks.

16e. Emergency Access

The project site has frontage on West Third Street and West Second Street and emergency personnel could access the project site from either of these streets via the planned trail, which would extend through the site. With such access, public safety impacts associated with emergency access would be less than significant.

16f. Conflicts with Alternative Transportation (Pedestrian, Bicycle, and Transit Access)

The Morgan Hill Bikeways Master Plan Update (2008) shows West Third Street and Del Monte Avenue as "scenic roads frequented by cyclists with narrow, outside lane and limited or no shoulder." The Master Plan also shows a +9 percent uphill grades on westbound Third Street and southbound Del Monte Avenue. The Master Plan also delineates the Little Llagas Creek Trail across the project site as well as areas to the north and south of the site. A proposed Class 3 bike route is designated in the Morgan Hill Bikeways Master Plan Update (2008) for the section of Monterey Road in the site vicinity (between West

[55] City of Morgan Hill, *Morgan Hill 2035 General Plan Draft Environmental Impact Report, Appendix D, Transportation and Traffic Data, Level of Service Computation Sheets for Intersections #164 (Del Monte Avenue and Main Avenue), #3343 (Monterey Road and Second Street), #3471 (Monterey Road and Third Street)*. January 13, 2016.

Main Avenue and West Dunne Avenue). The City is currently in the process of updating the 2008 Master Plan.

Project implementation would also incrementally extend the Little Llagas Creek Trail, which is proposed to extend from areas south of the site to areas north of the site, ending on West Main Street at the Main & Hale Transit Center. This trail extension would be consistent with the Bikeways Master Plan. As part of project implementation, West Third Street and Del Monte Avenue would be repaved and improved with curbs, gutters, and asphalt sidewalks in the site vicinity. Bike racks would also be added where parking area improvements are proposed on West Third Street. Such improvements would encourage alternative transportation modes such as pedestrians and bicycles to the project site, its vicinity, and the Little Llagas Creek Trail (less than significant impact). The proposed park is also accessible by the VTA bus route #68, which extends along Monterey Road in the site vicinity. Consequently, the proposed project would support rather than conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
17. Utilities and Service Systems – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

The proposed park development would have a limited need for utility and service systems. The development plans include two water fountains/bottle filling and pet stations, but no restroom facilities. Trash and recycling receptacles would be provided for the picnic areas.

17a, 17e. Wastewater Facilities and Service

The proposed park project would not require wastewater collection and treatment services.

17b, 17d. Water Facilities and Service

Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's municipal water system extracts water from the underground

aquifers via a series of groundwater wells distributed along the valley floor and supplies thirteen pressure zones. Water is then pumped up to service the five higher-pressure zones on both east and west sides of the valley via booster stations.

The City's water system facilities include 17 groundwater wells, 13 potable water storage tanks, 10 booster stations, and over 160 miles of pressured piping ranging from 2 to 14 inches in diameter. Gate valves and pressure-reducing valves are used to isolate or regulate flow between pressure zones. Currently, the City has an operational storage capacity equivalent to approximately 1.25 days of average water use.

The proposed project would use a negligible amount of domestic water, primarily supplied to two water fountains, one at the park entrance on West Third Street and a second fountain at the intersection of West Third Street and Del Monte Avenue near the driveway entrance to the Nob Hill Water Tank site. Domestic water would be provided from a water main in West Third Street.

Consistent with the 2035 General Plan Policy NRE-7.3, Water Efficiency and Landscaping, the park plans promote water conservation and efficient water use in public landscaping plans through the installation of decomposed granite, mulch, and resilient surfacing ground cover throughout the park site, along with drought resistant native plantings in open areas.

17c. Stormwater Drainage Facilities

At present, the park site is open space supporting grasses and mature oak woodland vegetation, promoting on-site percolation of rainfall. Storm flows from nearby impervious surfaces in the project area are collected and conveyed to a municipal storm drain in West Third Street. Storm runoff also drains from the project site directly into the West Little Llagas Creek channel along the eastern perimeter of the project site.

The park project proposes to replace non-native grass ground cover with: decomposed granite and mulch for trails, paths, and walkways; resilient pervious surfacing for play areas, and native plantings for non-native grasses and in bare earth areas throughout the park facility. New impervious surfaces in the park area would be limited to the paved parking lot, a short section of concrete walkway along the south side of West Third Street, and an asphalt walkway and concrete curb within the right-of-way for West Third Street and Del Monte Avenue repaving.

Storm runoff flows from the park project area would be directed into two C.3 bioinfiltration basins that would be located at both ends of the parking lot. Overflow discharges from the bioinfiltration basins would be collected by a 4-inch storm drain and conveyed across West Third Street to an existing 12-inch corrugated steel storm drain on the south side of the street, discharging into West Little Llagas Creek.

For more discussion on storm drainage, please see Section 9, *Hydrology and Water Quality*).

17f, 17g. Solid Waste

Recology South Valley (RSV) provides solid waste collection service to the City of Morgan Hill. RSV transports solid waste from the city to its transfer station in San Martin for sorting of recyclables. Solid waste not accepted at the transfer station is trucked to the John Smith Road Landfill in Hollister.

Chapter 13.28 of the City’s Municipal Code regulates solid waste collection and disposal in the City. In 2013, Morgan Hill’s per capita solid waste disposal rate for residents was 5.3 pounds per day (PPD); this is less than the CalRecycle estimated per capita disposal rate target for residents of 6.1 PPD. The City’s per capita solid waste disposal rate for employees in 2013 was 15.1 PPD; this is less than the CalRecycle per capita disposal rate target for employees of 16.3 PPD. CalRecycle indicates Morgan Hill has 34 disposal diversion programs.

The proposed park operation would incrementally increase demands on collection, recycling, and disposal services. CalRecycle provides information about waste characterization and commercial waste streams for various types sources. However, no data for waste streams from recreation and public administration sources are available.

For demolition and construction waste disposal, the California Green Building Standards Code (Cal-Green) came into effect for all projects beginning after January 1, 2011. Cal-Green Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. Cal-Green requires that all applicants have a waste management plan for on-site sorting of construction debris. The waste management plan shall do the following:

- Identify the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.
- Specify if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identify the diversion facility where the material collected will be taken.
- Identify construction methods employed to reduce the amount of waste generated.
- Specify that the amount of materials diverted shall be calculated by weight or volume, but not by both.

The City would conform to the Cal-Green requirements for re-use and disposal of construction waste generated by project site preparation and planned construction.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. Mandatory Findings of Significance -				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

18a, 18c. Significant Impacts on the Natural and Man-Made Environments

With mitigation measures specified above in Sections 3, 4, and 12, the proposed project would not degrade the quality of the environment. As indicated in the above discussion, the project also would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or

restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

18b. Cumulative Impacts

The proposed park project's action entailing the construction of a passive park use on the 1.7-acre project parcel and repaving of West Third Street and Del Monte Avenue would not cause environmental impacts that would be cumulatively considerable when evaluated in conjunction with other current or probably projects. The City proposes to construct recreational improvements related to Hilltop Park on Nob Hill, immediately southwest of the proposed park project. Potential cumulative impacts that could arise from the construction of both projects would be minimized through the City's scheduling of construction for both projects to ensure no new significant effects would result and that the potentially significant effects of Little Llagas Creek Park project are reduced through the implementation of specified mitigation measures.

ATTACHMENT 1

AIR QUALITY CALEE MOD OUTPUTS

AND

HEALTH RISK ANALYSIS SCREEN3 MODEL OUTPUT

Creek Park, Morgan Hill

San Francisco Bay Area Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	0.95	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 0.95 acre park

Construction Phase - Demo: 10 days, Prep: 1 day, Grading: 2 days, Construction: 100 days, Paving: 5 days

Off-road Equipment - Demo: 1 concrete saw, 1 dozer, 2 loader/backhoes

Off-road Equipment - Prep: 1 grader, 1 loader/backhoe

Off-road Equipment - Grading: 1 concrete saw, 1 dozer, 2 loader/backhoes

Off-road Equipment - Construction: 1 crane 1 forklift, 2 loader/backhoes

Off-road Equipment - Paving: 4 mixers, 1 paver, 1 roller, 1 loader/backhoe

Demolition - 500 tons

Trips and VMT - 49 demo truck trips

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.00	0.95
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.3124	12.7069	9.9020	0.0151	1.2070	0.7709	1.9428	0.4388	0.7092	1.1324	0.0000	1,464.3044	1,464.3044	0.3289	0.0000	1,471.2101
Total	**1.3124**	**12.7069**	**9.9020**	**0.0151**	**1.2070**	**0.7709**	**1.9428**	**0.4388**	**0.7092**	**1.1324**	**0.0000**	**1,464.3044**	**1,464.3044**	**0.3289**	**0.0000**	**1,471.2101**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.3124	12.7069	9.9020	0.0151	1.2070	0.7709	1.9428	0.4388	0.7092	1.1324	0.0000	1,464.3044	1,464.3044	0.3289	0.0000	1,471.2101
Total	**1.3124**	**12.7069**	**9.9020**	**0.0151**	**1.2070**	**0.7709**	**1.9428**	**0.4388**	**0.7092**	**1.1324**	**0.0000**	**1,464.3044**	**1,464.3044**	**0.3289**	**0.0000**	**1,471.2101**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2088	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.3100e-003	0.0109	0.0490	1.1000e-004	7.2100e-003	1.5000e-004	7.3600e-003	1.9300e-003	1.4000e-004	2.0600e-003		8.9542	8.9542	3.6000e-004		8.9617
Total	**1.2141**	**0.0109**	**0.0491**	**1.1000e-004**	**7.2100e-003**	**1.5000e-004**	**7.3600e-003**	**1.9300e-003**	**1.4000e-004**	**2.0600e-003**		**8.9544**	**8.9544**	**3.6000e-004**	**0.0000**	**8.9619**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2088	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.3100e-003	0.0109	0.0490	1.1000e-004	7.2100e-003	1.5000e-004	7.3600e-003	1.9300e-003	1.4000e-004	2.0600e-003		8.9542	8.9542	3.6000e-004		8.9617
Total	**1.2141**	**0.0109**	**0.0491**	**1.1000e-004**	**7.2100e-003**	**1.5000e-004**	**7.3600e-003**	**1.9300e-003**	**1.4000e-004**	**2.0600e-003**		**8.9544**	**8.9544**	**3.6000e-004**	**0.0000**	**8.9619**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/16/2017	5	1	
3	Grading	Grading	1/17/2017	1/18/2017	5	2	
4	Building Construction	Building Construction	1/19/2017	6/7/2017	5	100	
5	Paving	Paving	6/8/2017	6/14/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	49.00	12.40	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	18.00	7.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0700	0.0000	1.0700	0.1620	0.0000	0.1620			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930		1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**1.0700**	**0.7266**	**1.7965**	**0.1620**	**0.6930**	**0.8550**		**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0713	0.6854	0.8121	1.8900e-003	0.0427	8.5300e-003	0.0513	0.0117	7.8400e-003	0.0196		186.7207	186.7207	1.4400e-003		186.7510
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0362	0.0435	0.5074	1.1600e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		93.7705	93.7705	4.5700e-003		93.8664
Total	**0.1075**	**0.7289**	**1.3195**	**3.0500e-003**	**0.1370**	**9.2500e-003**	**0.1463**	**0.0367**	**8.5100e-003**	**0.0452**		**280.4912**	**280.4912**	**6.0100e-003**		**280.6174**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0700	0.0000	1.0700	0.1620	0.0000	0.1620			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930	0.0000	1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**1.0700**	**0.7266**	**1.7965**	**0.1620**	**0.6930**	**0.8550**	**0.0000**	**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0713	0.6854	0.8121	1.8900e-003	0.0427	8.5300e-003	0.0513	0.0117	7.8400e-003	0.0196		186.7207	186.7207	1.4400e-003		186.7510
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0362	0.0435	0.5074	1.1600e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		93.7705	93.7705	4.5700e-003		93.8664
Total	**0.1075**	**0.7289**	**1.3195**	**3.0500e-003**	**0.1370**	**9.2500e-003**	**0.1463**	**0.0367**	**8.5100e-003**	**0.0452**		**280.4912**	**280.4912**	**6.0100e-003**		**280.6174**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089		955.8663	955.8663	0.2929		962.0167
Total	**1.2694**	**12.6852**	**7.2319**	**9.3300e-003**	**0.5303**	**0.7705**	**1.3007**	**0.0573**	**0.7089**	**0.7661**		**955.8663**	**955.8663**	**0.2929**		**962.0167**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0181	0.0217	0.2537	5.8000e-004	0.0472	3.6000e-004	0.0475	0.0125	3.3000e-004	0.0128		46.8853	46.8853	2.2800e-003		46.9332
Total	**0.0181**	**0.0217**	**0.2537**	**5.8000e-004**	**0.0472**	**3.6000e-004**	**0.0475**	**0.0125**	**3.3000e-004**	**0.0128**		**46.8853**	**46.8853**	**2.2800e-003**		**46.9332**

3.3 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089	0.0000	955.8663	955.8663	0.2929		962.0167
Total	**1.2694**	**12.6852**	**7.2319**	**9.3300e-003**	**0.5303**	**0.7705**	**1.3007**	**0.0573**	**0.7089**	**0.7661**	**0.0000**	**955.8663**	**955.8663**	**0.2929**		**962.0167**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0181	0.0217	0.2537	5.8000e-004	0.0472	3.6000e-004	0.0475	0.0125	3.3000e-004	0.0128		46.8853	46.8853	2.2800e-003		46.9332
Total	**0.0181**	**0.0217**	**0.2537**	**5.8000e-004**	**0.0472**	**3.6000e-004**	**0.0475**	**0.0125**	**3.3000e-004**	**0.0128**		**46.8853**	**46.8853**	**2.2800e-003**		**46.9332**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930		1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**0.7528**	**0.7266**	**1.4794**	**0.4138**	**0.6930**	**1.1068**		**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0362	0.0435	0.5074	1.1600e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		93.7705	93.7705	4.5700e-003		93.8664
Total	**0.0362**	**0.0435**	**0.5074**	**1.1600e-003**	**0.0943**	**7.2000e-004**	**0.0950**	**0.0250**	**6.7000e-004**	**0.0257**		**93.7705**	**93.7705**	**4.5700e-003**		**93.8664**

3.4 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.2049	10.4761	8.5825	0.0120		0.7266	0.7266		0.6930	0.6930	0.0000	1,183.8131	1,183.8131	0.2333		1,188.7118
Total	**1.2049**	**10.4761**	**8.5825**	**0.0120**	**0.7528**	**0.7266**	**1.4794**	**0.4138**	**0.6930**	**1.1068**	**0.0000**	**1,183.8131**	**1,183.8131**	**0.2333**		**1,188.7118**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0362	0.0435	0.5074	1.1600e-003	0.0943	7.2000e-004	0.0950	0.0250	6.7000e-004	0.0257		93.7705	93.7705	4.5700e-003		93.8664
Total	**0.0362**	**0.0435**	**0.5074**	**1.1600e-003**	**0.0943**	**7.2000e-004**	**0.0950**	**0.0250**	**6.7000e-004**	**0.0257**		**93.7705**	**93.7705**	**4.5700e-003**		**93.8664**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1158	11.3040	7.1027	0.0102		0.7423	0.7423		0.6829	0.6829		1,042.3400	1,042.3400	0.3194		1,049.0468
Total	**1.1158**	**11.3040**	**7.1027**	**0.0102**		**0.7423**	**0.7423**		**0.6829**	**0.6829**		**1,042.3400**	**1,042.3400**	**0.3194**		**1,049.0468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0720	0.6081	0.7497	1.6700e-003	0.0465	9.0100e-003	0.0556	0.0133	8.2900e-003	0.0216		164.5836	164.5836	1.2600e-003		164.6100
Worker	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.1372**	**0.6864**	**1.6630**	**3.7600e-003**	**0.2163**	**0.0103**	**0.2266**	**0.0583**	**9.4900e-003**	**0.0678**		**333.3705**	**333.3705**	**9.4800e-003**		**333.5695**

3.5 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1158	11.3040	7.1027	0.0102		0.7423	0.7423		0.6829	0.6829	0.0000	1,042.3400	1,042.3400	0.3194		1,049.0468
Total	**1.1158**	**11.3040**	**7.1027**	**0.0102**		**0.7423**	**0.7423**		**0.6829**	**0.6829**	**0.0000**	**1,042.3400**	**1,042.3400**	**0.3194**		**1,049.0468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0720	0.6081	0.7497	1.6700e-003	0.0465	9.0100e-003	0.0556	0.0133	8.2900e-003	0.0216		164.5836	164.5836	1.2600e-003		164.6100
Worker	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.1372**	**0.6864**	**1.6630**	**3.7600e-003**	**0.2163**	**0.0103**	**0.2266**	**0.0583**	**9.4900e-003**	**0.0678**		**333.3705**	**333.3705**	**9.4800e-003**		**333.5695**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0406**	**9.8344**	**7.2432**	**0.0111**		**0.6018**	**0.6018**		**0.5572**	**0.5572**		**1,068.9366**	**1,068.9366**	**0.2968**		**1,075.1698**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.0652**	**0.0783**	**0.9133**	**2.0900e-003**	**0.1698**	**1.3000e-003**	**0.1711**	**0.0450**	**1.2000e-003**	**0.0462**		**168.7869**	**168.7869**	**8.2200e-003**		**168.9595**

3.6 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572	0.0000	1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0406**	**9.8344**	**7.2432**	**0.0111**		**0.6018**	**0.6018**		**0.5572**	**0.5572**	**0.0000**	**1,068.9366**	**1,068.9366**	**0.2968**		**1,075.1698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.0652**	**0.0783**	**0.9133**	**2.0900e-003**	**0.1698**	**1.3000e-003**	**0.1711**	**0.0450**	**1.2000e-003**	**0.0462**		**168.7869**	**168.7869**	**8.2200e-003**		**168.9595**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3100e-003	0.0109	0.0490	1.1000e-004	7.2100e-003	1.5000e-004	7.3600e-003	1.9300e-003	1.4000e-004	2.0600e-003		8.9542	8.9542	3.6000e-004		8.9617
Unmitigated	5.3100e-003	0.0109	0.0490	1.1000e-004	7.2100e-003	1.5000e-004	7.3600e-003	1.9300e-003	1.4000e-004	2.0600e-003		8.9542	8.9542	3.6000e-004		8.9617

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.59	1.59	1.59	3,394	3,394
Total	1.59	1.59	1.59	3,394	3,394

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546114	0.062902	0.174648	0.122995	0.034055	0.004856	0.015640	0.024397	0.002087	0.003279	0.006673	0.000688	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2088	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.2088	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.2088**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.2088**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Creek Park, Morgan Hill

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	0.95	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 0.95 acre park

Construction Phase - Demo: 10 days, Prep: 1 day, Grading: 2 days, Construction: 100 days, Paving: 5 days

Off-road Equipment - Demo: 1 concrete saw, 1 dozer, 2 loader/backhoes

Off-road Equipment - Prep: 1 grader, 1 loader/backhoe

Off-road Equipment - Grading: 1 concrete saw, 1 dozer, 2 loader/backhoes

Off-road Equipment - Construction: 1 crane 1 forklift, 2 loader/backhoes

Off-road Equipment - Paving: 4 mixers, 1 paver, 1 roller, 1 loader/backhoe

Demolition - 500 tons

Trips and VMT - 49 demo truck trips

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.00	0.95
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0741	0.6989	0.5299	8.2000e-004	0.0180	0.0439	0.0619	4.3900e-003	0.0406	0.0450	0.0000	72.8457	72.8457	0.0170	0.0000	73.2037
Total	**0.0741**	**0.6989**	**0.5299**	**8.2000e-004**	**0.0180**	**0.0439**	**0.0619**	**4.3900e-003**	**0.0406**	**0.0450**	**0.0000**	**72.8457**	**72.8457**	**0.0170**	**0.0000**	**73.2037**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0741	0.6989	0.5299	8.2000e-004	0.0180	0.0439	0.0619	4.3900e-003	0.0406	0.0450	0.0000	72.8457	72.8457	0.0170	0.0000	73.2036
Total	**0.0741**	**0.6989**	**0.5299**	**8.2000e-004**	**0.0180**	**0.0439**	**0.0619**	**4.3900e-003**	**0.0406**	**0.0450**	**0.0000**	**72.8457**	**72.8457**	**0.0170**	**0.0000**	**73.2036**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2206	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.4000e-004	2.1100e-003	9.3200e-003	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.3990	1.3990	6.0000e-005	0.0000	1.4003
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0409
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.2132	1.2132	5.0000e-005	1.0000e-005	1.2178
Total	**0.2215**	**2.1100e-003**	**9.3300e-003**	**2.0000e-005**	**1.2600e-003**	**3.0000e-005**	**1.2900e-003**	**3.4000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0183**	**2.6122**	**2.6305**	**1.1900e-003**	**1.0000e-005**	**2.6590**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2206	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.4000e-004	2.1100e-003	9.3200e-003	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.3990	1.3990	6.0000e-005	0.0000	1.4003
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0409
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.2132	1.2132	5.0000e-005	1.0000e-005	1.2178
Total	**0.2215**	**2.1100e-003**	**9.3300e-003**	**2.0000e-005**	**1.2600e-003**	**3.0000e-005**	**1.2900e-003**	**3.4000e-004**	**2.0000e-005**	**3.6000e-004**	**0.0183**	**2.6122**	**2.6305**	**1.1900e-003**	**1.0000e-005**	**2.6590**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/16/2017	5	1	
3	Grading	Grading	1/17/2017	1/18/2017	5	2	
4	Building Construction	Building Construction	1/19/2017	6/7/2017	5	100	
5	Paving	Paving	6/8/2017	6/14/2017	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	49.00	12.40	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	18.00	7.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3500e-003	0.0000	5.3500e-003	8.1000e-004	0.0000	8.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0200e-003	0.0524	0.0429	6.0000e-005		3.6300e-003	3.6300e-003		3.4600e-003	3.4600e-003	0.0000	5.3697	5.3697	1.0600e-003	0.0000	5.3919
Total	**6.0200e-003**	**0.0524**	**0.0429**	**6.0000e-005**	**5.3500e-003**	**3.6300e-003**	**8.9800e-003**	**8.1000e-004**	**3.4600e-003**	**4.2700e-003**	**0.0000**	**5.3697**	**5.3697**	**1.0600e-003**	**0.0000**	**5.3919**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-004	3.5500e-003	5.2200e-003	1.0000e-005	2.1000e-004	4.0000e-005	2.5000e-004	6.0000e-005	4.0000e-005	1.0000e-004	0.0000	0.8453	0.8453	1.0000e-005	0.0000	0.8455
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.5000e-004	2.3700e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3959	0.3959	2.0000e-005	0.0000	0.3964
Total	**5.7000e-004**	**3.8000e-003**	**7.5900e-003**	**2.0000e-005**	**6.6000e-004**	**4.0000e-005**	**7.1000e-004**	**1.8000e-004**	**4.0000e-005**	**2.2000e-004**	**0.0000**	**1.2413**	**1.2413**	**3.0000e-005**	**0.0000**	**1.2418**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3500e-003	0.0000	5.3500e-003	8.1000e-004	0.0000	8.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0200e-003	0.0524	0.0429	6.0000e-005		3.6300e-003	3.6300e-003		3.4600e-003	3.4600e-003	0.0000	5.3697	5.3697	1.0600e-003	0.0000	5.3919
Total	**6.0200e-003**	**0.0524**	**0.0429**	**6.0000e-005**	**5.3500e-003**	**3.6300e-003**	**8.9800e-003**	**8.1000e-004**	**3.4600e-003**	**4.2700e-003**	**0.0000**	**5.3697**	**5.3697**	**1.0600e-003**	**0.0000**	**5.3919**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-004	3.5500e-003	5.2200e-003	1.0000e-005	2.1000e-004	4.0000e-005	2.5000e-004	6.0000e-005	4.0000e-005	1.0000e-004	0.0000	0.8453	0.8453	1.0000e-005	0.0000	0.8455
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.5000e-004	2.3700e-003	1.0000e-005	4.5000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3959	0.3959	2.0000e-005	0.0000	0.3964
Total	**5.7000e-004**	**3.8000e-003**	**7.5900e-003**	**2.0000e-005**	**6.6000e-004**	**4.0000e-005**	**7.1000e-004**	**1.8000e-004**	**4.0000e-005**	**2.2000e-004**	**0.0000**	**1.2413**	**1.2413**	**3.0000e-005**	**0.0000**	**1.2418**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3000e-004	6.3400e-003	3.6200e-003	0.0000		3.9000e-004	3.9000e-004		3.5000e-004	3.5000e-004	0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total	**6.3000e-004**	**6.3400e-003**	**3.6200e-003**	**0.0000**	**2.7000e-004**	**3.9000e-004**	**6.6000e-004**	**3.0000e-005**	**3.5000e-004**	**3.8000e-004**	**0.0000**	**0.4336**	**0.4336**	**1.3000e-004**	**0.0000**	**0.4364**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0198	0.0198	0.0000	0.0000	0.0198
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0198**	**0.0198**	**0.0000**	**0.0000**	**0.0198**

3.3 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3000e-004	6.3400e-003	3.6200e-003	0.0000		3.9000e-004	3.9000e-004		3.5000e-004	3.5000e-004	0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total	**6.3000e-004**	**6.3400e-003**	**3.6200e-003**	**0.0000**	**2.7000e-004**	**3.9000e-004**	**6.6000e-004**	**3.0000e-005**	**3.5000e-004**	**3.8000e-004**	**0.0000**	**0.4336**	**0.4336**	**1.3000e-004**	**0.0000**	**0.4364**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0198	0.0198	0.0000	0.0000	0.0198
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0198**	**0.0198**	**0.0000**	**0.0000**	**0.0198**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	0.0105	8.5800e-003	1.0000e-005		7.3000e-004	7.3000e-004		6.9000e-004	6.9000e-004	0.0000	1.0739	1.0739	2.1000e-004	0.0000	1.0784
Total	**1.2000e-003**	**0.0105**	**8.5800e-003**	**1.0000e-005**	**7.5000e-004**	**7.3000e-004**	**1.4800e-003**	**4.1000e-004**	**6.9000e-004**	**1.1000e-003**	**0.0000**	**1.0739**	**1.0739**	**2.1000e-004**	**0.0000**	**1.0784**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0792	0.0792	0.0000	0.0000	0.0793
Total	**3.0000e-005**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0792**	**0.0792**	**0.0000**	**0.0000**	**0.0793**

3.4 Grading - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-003	0.0105	8.5800e-003	1.0000e-005		7.3000e-004	7.3000e-004		6.9000e-004	6.9000e-004	0.0000	1.0739	1.0739	2.1000e-004	0.0000	1.0784
Total	**1.2000e-003**	**0.0105**	**8.5800e-003**	**1.0000e-005**	**7.5000e-004**	**7.3000e-004**	**1.4800e-003**	**4.1000e-004**	**6.9000e-004**	**1.1000e-003**	**0.0000**	**1.0739**	**1.0739**	**2.1000e-004**	**0.0000**	**1.0784**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0792	0.0792	0.0000	0.0000	0.0793
Total	**3.0000e-005**	**5.0000e-005**	**4.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0792**	**0.0792**	**0.0000**	**0.0000**	**0.0793**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0558	0.5652	0.3551	5.1000e-004		0.0371	0.0371		0.0342	0.0342	0.0000	47.2798	47.2798	0.0145	0.0000	47.5840
Total	**0.0558**	**0.5652**	**0.3551**	**5.1000e-004**		**0.0371**	**0.0371**		**0.0342**	**0.0342**	**0.0000**	**47.2798**	**47.2798**	**0.0145**	**0.0000**	**47.5840**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0400e-003	0.0314	0.0487	8.0000e-005	2.2500e-003	4.5000e-004	2.7100e-003	6.5000e-004	4.2000e-004	1.0600e-003	0.0000	7.4413	7.4413	6.0000e-005	0.0000	7.4425
Worker	3.0300e-003	4.4300e-003	0.0426	1.0000e-004	8.1600e-003	7.0000e-005	8.2300e-003	2.1700e-003	6.0000e-005	2.2300e-003	0.0000	7.1266	7.1266	3.7000e-004	0.0000	7.1344
Total	**7.0700e-003**	**0.0359**	**0.0913**	**1.8000e-004**	**0.0104**	**5.2000e-004**	**0.0109**	**2.8200e-003**	**4.8000e-004**	**3.2900e-003**	**0.0000**	**14.5679**	**14.5679**	**4.3000e-004**	**0.0000**	**14.5770**

3.5 Building Construction - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0558	0.5652	0.3551	5.1000e-004		0.0371	0.0371		0.0342	0.0342	0.0000	47.2797	47.2797	0.0145	0.0000	47.5839
Total	**0.0558**	**0.5652**	**0.3551**	**5.1000e-004**		**0.0371**	**0.0371**		**0.0342**	**0.0342**	**0.0000**	**47.2797**	**47.2797**	**0.0145**	**0.0000**	**47.5839**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0400e-003	0.0314	0.0487	8.0000e-005	2.2500e-003	4.5000e-004	2.7100e-003	6.5000e-004	4.2000e-004	1.0600e-003	0.0000	7.4413	7.4413	6.0000e-005	0.0000	7.4425
Worker	3.0300e-003	4.4300e-003	0.0426	1.0000e-004	8.1600e-003	7.0000e-005	8.2300e-003	2.1700e-003	6.0000e-005	2.2300e-003	0.0000	7.1266	7.1266	3.7000e-004	0.0000	7.1344
Total	**7.0700e-003**	**0.0359**	**0.0913**	**1.8000e-004**	**0.0104**	**5.2000e-004**	**0.0109**	**2.8200e-003**	**4.8000e-004**	**3.2900e-003**	**0.0000**	**14.5679**	**14.5679**	**4.3000e-004**	**0.0000**	**14.5770**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6000e-003	0.0246	0.0181	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6000e-003**	**0.0246**	**0.0181**	**3.0000e-005**		**1.5000e-003**	**1.5000e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.2000e-004	2.1300e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3563	0.3563	2.0000e-005	0.0000	0.3567
Total	**1.5000e-004**	**2.2000e-004**	**2.1300e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3563**	**0.3563**	**2.0000e-005**	**0.0000**	**0.3567**

3.6 Paving - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6000e-003	0.0246	0.0181	3.0000e-005		1.5000e-003	1.5000e-003		1.3900e-003	1.3900e-003	0.0000	2.4243	2.4243	6.7000e-004	0.0000	2.4384
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.6000e-003**	**0.0246**	**0.0181**	**3.0000e-005**		**1.5000e-003**	**1.5000e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**2.4243**	**2.4243**	**6.7000e-004**	**0.0000**	**2.4384**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.2000e-004	2.1300e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3563	0.3563	2.0000e-005	0.0000	0.3567
Total	**1.5000e-004**	**2.2000e-004**	**2.1300e-003**	**0.0000**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3563**	**0.3563**	**2.0000e-005**	**0.0000**	**0.3567**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.4000e-004	2.1100e-003	9.3200e-003	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.3990	1.3990	6.0000e-005	0.0000	1.4003
Unmitigated	9.4000e-004	2.1100e-003	9.3200e-003	2.0000e-005	1.2600e-003	3.0000e-005	1.2900e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	1.3990	1.3990	6.0000e-005	0.0000	1.4003

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.59	1.59	1.59	3,394	3,394
Total	1.59	1.59	1.59	3,394	3,394

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546114	0.062902	0.174648	0.122995	0.034055	0.004856	0.015640	0.024397	0.002087	0.003279	0.006673	0.000688	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2206	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.2206	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1701					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.2206**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1701					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.2206**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.2132	5.0000e-005	1.0000e-005	1.2178
Unmitigated	1.2132	5.0000e-005	1.0000e-005	1.2178

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	1.2132	5.0000e-005	1.0000e-005	1.2178
Total		**1.2132**	**5.0000e-005**	**1.0000e-005**	**1.2178**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	1.2132	5.0000e-005	1.0000e-005	1.2178
Total		**1.2132**	**5.0000e-005**	**1.0000e-005**	**1.2178**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0183	1.0800e-003	0.0000	0.0409
Unmitigated	0.0183	1.0800e-003	0.0000	0.0409

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0409
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0409**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0409
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0409**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

CREEK HRA

Risks and Hazards Construction-Related Significance Thresholds

Pollutant	Construction-Related Thresholds
Risks and Hazards – TACs & $PM_{2.5}$ (Individual Project)	Increased cancer risk of >10.0 in a million Increased non-cancer risk of >1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: >0.3 µg/m^3 annual average
Risks and Hazards – TACs & $PM_{2.5}$ (Cumulative – Source or Receptor)	Increased cancer risk of >100 in a million (from all local sources) Increased non-cancer risk of >10.0 Hazard Index (from all local sources) (Chronic) Ambient $PM_{2.5}$ increase: >0.8 µg/m^3 annual average (from all local sources) Zone of Influence: 1,000-foot radius from property line of source or receptor

Annual emissions are derived from CalEEMod Annual output files. CaleeMod annual concentrations were used in the AERSCREEN model to calculate the maximum one-hour and annual concentrations with an hourly to annual scaling factor of 0.1. The predicted maximum DPM concentrations are as follows.

Total DPM Emissions	Model Output Maximum One-Hour Concentration	Annual Concentration
0.0406 Tons	2.019 µg/m^3	0.2019 µg/m^3

AERSCREEN output thus indicates that project construction will produce a maximum annual DPM concentration of 0.2019 µg/m^3. This is less than the individual project PM-2.5 significance threshold of 0.3 µg/m^3. No mitigation is required.

The excess individual cancer risk factor for DPM exposure is approximately 300 in a million per 1 µg/m^3 of lifetime exposure. More recent research has determined that young children are substantially more sensitive to DPM exposure risk. If exposure occurs in the first several years of life, an age sensitivity factor (ASF) of 10 should be applied. For toddlers though mid-teens, the ASF is 3. The DPM exposure risk from construction exhaust thus depends upon the age of the receptor population as follows:

Individual Project Construction Emissions

Age Group	Excess Cancer Risk (in a million)
Infants	8.65
Children	2.59
Adults	0.87
Threshold	10
Exceeds Threshold?	No

*DPM ($\mu g/m^3$) * ASF * 300 x 10^{-6} /70 years

The exposure risk to the MEI is below the BAAQMD individual cancer risk of 10 in a million significance threshold.

BAAQMD guidelines require a determination of cumulative emissions. Therefore, in addition to project construction, possible local stationary or vehicular source emissions must be added to this concentration to determine the cumulative total. Specifically, the BAAQMD requires that existing stationary and mobile emissions sources within 1,000 feet of the project area also be considered. Any potential cumulative health risk would, therefore, derive from project activities plus any existing identified risk sources within the project vicinity.

The BAAQMD has developed a Google Earth application that maps the locations of all stationary sources in the region that the District permits. For each source the application lists the name of the source and the conservative screening level cancer risk and PM-2.5 concentration values.

The proposed MEI is currently exposed to background emissions from a Verizon Wireless generator within 300 feet. Based on the BAAQMD's database for existing permitted sources, the following screening-level estimates from existing permitted source within 1,000 feet of the project site were compiled:

Risks and Hazards for Maximally Exposed Receptor from Existing Permitted Stationary Sources

Site #	**Facility Name**	**Street Address**	**City**	**Distance**	**Excess Cancer Risk in a Million**	**Chronic Hazard Index**	**PM2.5 ($\mu g/m^3$)**
16604	Verizon Wireless Generator	100 W 3rd St	Morgan Hill	300 feet	2.85	0.00	0.00
14592	Verizon Wireless Generator	20 W 2nd St	Morgan Hill	870 feet	4.72	0.01	0.01
Total					7.57	0.01	0.01

*adjusted for distance per BAAQMD Distance Multiplier Tool for Generators

The district has also developed screening tables for roadways within 1,000 feet of a project based on annual average daily traffic (ADT). Only roadways with an ADT more than 10,000 are to be included in any evaluation. ADTs on roadways near the project site were obtained from the City of Morgan Hill White Paper, Transportation and Public Infrastructure, May 16, 2013.

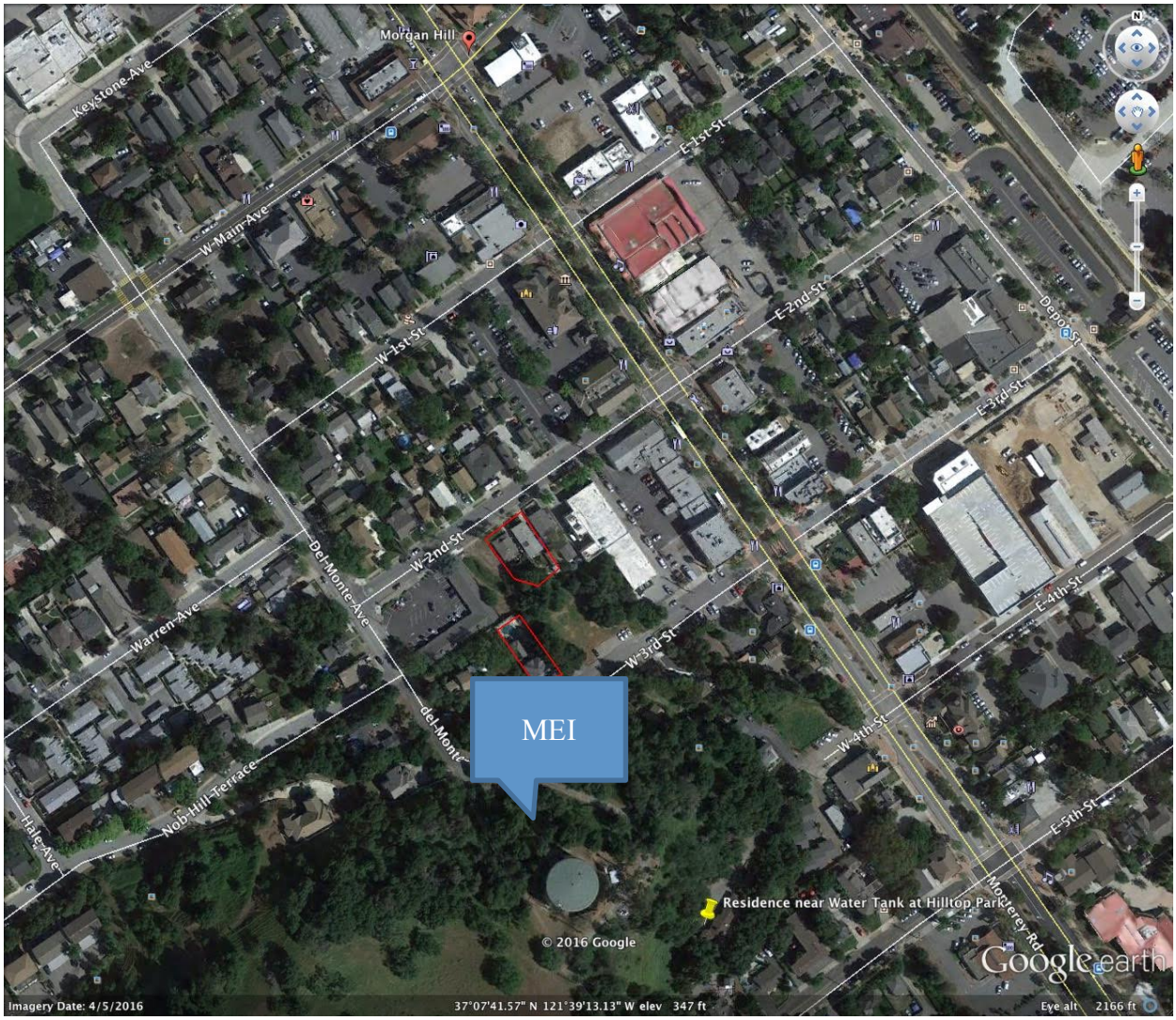
No freeways are within 1,000 feet of the proposed construction area. However, Monterey Road has ADTs exceeding 10,000 per day and is within 1,000 feet of the project boundary. W Dunne fronts the project site but only has an ADT of 6,580 and therefore was not included in the analysis.

Direction	Roadway	Distance	ADT	Risk ($\times 10^{-6}$)	PM-2.5 Concentration $\mu g/m^3$
N-S	Monterey Rd	370 feet	17,780	1.73	0.034

The following chart summarizes the different cumulative area contributors (stationary source and project construction):

MEI

Type	Risk ($\times 10^{-6}$)	PM-2.5 Concentration $\mu g/m^3$	Chronic Hazard	Acute Hazard
Stationary Source	33.36	0.06	0.01	-
Roadways	1.73	0.03	<0.01	-
Individual Project (worst-case)	8.65	0.20	0.040	0.23
Max Cumulative	43.74	0.29		0.23
Threshold	100	0.8	1	1
Exceeds Threshold	No	No	No	No


Morgan Hill
Keystone Ave
W Main Ave
E 1st St
W 1st St
E 2nd St
Depot St
E 3rd St
W 2nd St
Del Monte Ave
Warren Ave
W 3rd St
E 4th St
MEI
del Monte
W 4th St
Nob Hill Terrace
Hale Ave
E 5th St
Residence near Water Tank at Hilltop Park
Monterey Rd
© 2016 Google
Google earth
Imagery Date: 4/5/2016
37°07'41.57" N 121°39'13.13" W elev 347 ft
Eye alt 2166 ft

ATTACHMENT 2

BIOLOGICAL RESOURCES REPORT

FOR

CITY OF MORGAN HILL

DOWNTOWN PARKS PROJECT

MORGAN HILL, CALIFORNIA

BY

MOSAIC ASSOCIATES LLC.

AUGUST, 2016

BIOLOGICAL RESOURCES REPORT FOR CITY OF MORGAN HILL DOWNTOWN PARKS PROJECT, MORGAN HILL, CA

August 2016

Prepared for:

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1.0 Introduction

This report contains the findings of a biological resources assessment for the City of Morgan Hill Downtown Parks project consisting of the development of the Depot Street, Little Llagas Creek and Hilltop Park properties located in downtown Morgan Hill, CA. (Figure 1). The 0.93-acre Depot Street site is located on Depot Street between E. 3rd and E. 4th Streets. Little Llagas Creek (1.7 acres) and Hilltop Park (4.89 acres) are on adjoining properties between East Second Street and East Fifth Street. The City of Morgan Hill has proposed development of three parks on these City-owned properties.

The purpose of this biological resources report is to characterize the habitats that are present within the Study Area comprising the three park properties, evaluate the impact of the project on biological resources, and describe mitigation measures to reduce potential impacts of the project on biological resources. This report was prepared in support of the environmental review of the project by the City of Morgan Hill under a contract with Geier & Geier Consulting, Inc.

2.0 Project Description

The Project consists of the development of three new parks on City-owned property in downtown Morgan Hill. It will create an integrated trail and park setting that integrates downtown features, roadways, and natural features into the parks. A brief description of each park is provided below.

Depot Street Park

This park will replace approximately 65 parking spaces in the City-owned parking lot adjacent to the railroad tracks. This park will primarily include play equipment for younger children to utilize. The park will also potentially include a restroom. The development of the park would require removal of an existing parking lot and construction of a playground with walkways, play equipment, fencing, seating and landscaping (Figure 2).

Little Llagas Creek Park

This park will turn existing open space into a natural park space to be used for more passive recreation. The park will front the existing creek and will also include the replacement of a bridge and the creation of two pedestrian bridges that cross the creek. Four trees will be removed, as well as some of the existing utilities, fencing and curbs. Earthwork will be required to create the appropriate topography for park facilities. Constructed improvements would include walkways, a pedestrian bridge and a combined pedestrian/vehicular bridge over the creek, picnic and play equipment, signage, lighting, seating, parking and associated facilities (Figure 3). No restrooms will be placed here.

Hilltop Trail and Park

This park will be created by converting existing property surrounding a City-owned water storage tank. The existing utility road will connect to a proposed trail that will pass over Nob Hill, providing a trail connection from the center of downtown. The park space will include the

trail, par course equipment and other typical park and trail amenities. It will also include a unique slide built into the hill. A major component of this park will be transforming a currently little used roadway from a two way street into a one way street with adjacent walking trail. Park development will require the removal of three trees and small areas of existing asphalt. Some earthwork would be required to create pathways. Constructed improvements would include asphalt and decomposed granite pathways, benches, picnic tables, outdoor fitness equipment, stairs, signage and lighting (Figure 4).

3.0 Regulatory Background

The following sections describe the relevant regulatory context for this biological resources assessment, including applicable laws and regulations that were applied to the field investigation and the analysis of potential impacts of the project on biological resources.

3.1 Special-Status Species & Natural Communities

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. Plant species on California Native Plant Society (CNPS) Lists 1 and 2 are also considered special status plant species and must be considered under CEQA.

Special-status natural communities are those that are considered rare in the region, support special-status plant or wildlife species, or receive regulatory protection (*i.e.,* Section 404 and 401 of the Clean Water Act, the CDFW Section1600 *et seq.* of the California Fish and Game Code, and/or the Porter-Cologne Act). In addition, the California Natural Diversity Data Base (CNDDB) has designated a number of communities as rare; these communities are given the highest inventory priority (Holland 1986, CNPS 2011).

Three special-status species have potential to occur within the Study Area. Sections 6 and 7 below describe these species, potential impacts of the project and mitigation measures.

3.2 Migratory Birds

State and federal law protect most bird species. The Migratory Bird Treaty Act (MBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, their occupied nests and eggs.

Migratory birds are likely to be present and nest within the Study Area. Section 7 below describes potential impacts on migratory birds and mitigation measures.

3.3 Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5 (1992), which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Birds of prey may be present and nest within the Study Area. Section 7 below describes potential impacts and mitigation measures.

3.4 Waters of the U.S. and State

Section 404 of the Clean Water Act (CWA) of 1972 regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands. The primary intent of the CWA is to authorize the U.S. Environmental Protection Agency (EPA) to regulate water quality through the restriction of pollution discharges. The U.S. Army Corps of Engineers (USACE) has the principal authority to regulate discharges of dredged or fill material into waters of the U.S.

Pursuant to Section 401 of the Clean Water Act, an applicant for a federal permit to conduct any activity which may result in discharge into navigable waters must provide a certification from the Regional Water Quality Control Board (RWQCB) that such discharge will comply with the state water quality standards (Cal. Code Regs. Tit. 23, §§3830 *et seq*.).

Under the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000-14920), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State's waters. "Waste" is broadly defined by the Porter-Cologne Act to include "sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature…." (Cal. Water Code §13050).

The CDFW exercises jurisdiction over wetland and riparian resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 to 1607. The CDFW has the authority to regulate work that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. Areas subject to CDFW's jurisdiction over rivers, streams, creeks or lakes are usually bounded by the top-of-bank or the outermost edges of riparian vegetation.

Discharges of fill material into Little Llagas Creek would be regulated by the USACE and RWQCB, while CDFW would regulate work in the creek extending to the outer limit of riparian vegetation.

3.5 Relevant Local Policies, Ordinances, Regulations

Tree Ordinance. The City of Morgan Hill has a tree ordinance (Chapter 12.32 of the City's municipal code) which seeks to protect all trees having a single stem or trunk with a circumference of forty inches or greater for nonindigenous species (except those in residential zones) and eighteen inches or greater for indigenous species measured at four and one-half feet vertically above the ground or immediately below the lowest branch. Indigenous trees are defined by the City as any tree that is native to the Morgan Hill region, including oaks (all types), California bays, madrones, sycamore and alder. The ordinance states that "it is unlawful for any person to cut down, remove, poison or otherwise kill or destroy, or cause to be removed any tree or community of trees on any city or private property without first securing a permit as provided in this chapter; provided, however, that a permit shall not be required for developments which have been reviewed and approved by the planning commission or architectural and site review board and the tree removal conforms with the landscape plans of those developments."

A tree permit will be needed prior to the removal of protected trees within the Study Area.

Citywide Burrowing Owl Habitat Mitigation Plan (Owl Plan). Since 2003, the City of Morgan Hill's Owl Plan has provided a mechanism to conserve suitable burrowing owl habitat by assessing a fee on all new development within the City. This system spreads owl mitigation costs across development projects with the philosophy that owls are impacted by the loss in foraging habitat and potential breeding habitat, not just active breeding habitat. Therefore, every new development project in Morgan Hill is subject to a burrowing owl fee. This fee is levied on residential development per dwelling unit and on commercial/industrial development per acre. The fee for residential development is collected at the time of recordation of the subdivision map. The fee for commercial/industrial development is collected at the time of building permit issuance.

As the project does not entail residential development, commercial or industrial development, the extent to which mitigation fees will be required is not known and should be determined by City staff.

Santa Clara Valley Water Resources Protection Collaborative (Collaborative). In an effort to clarify and streamline local permitting for streamside activities, representatives from the Santa Clara Valley Water District, 15 cities, the county, business, agriculture, streamside property owners and environmental interests established the Water Resources Protection Collaborative in 2002. The City of Morgan Hill is a member of the Collaborative, and adopted the *Guidelines and Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resource in Santa Clara County Guidelines* (Guidelines) in 2007. The Guidelines are designed to address land use activities near streams in order to protect surface and groundwater quality and habitat values.

The Guidelines designate a Streamside Protection Area to establish a permit review "trigger" when land use changes are considered near streams. The Streamside Protection Area "trigger" is defined as follows:

> "The Streamside Protection Area shall include all properties abutting or in proximity to a stream, including all properties located within 50 ft. from the top of bank".

In addition to triggering a review of land use changes near streams, they describe the protection of riparian corridors consistent with onsite conditions to protect habitat and water quality. The Guidelines are not prescriptive in defining buffer distances, and defer to local jurisdictions to develop development buffers from riparian areas and stream protection ordinances.

An assessment of impacts to the Streamside Protection Area is described below in Section 7, and will be addressed in the CEQA review of the project.

3.6 Santa Clara Valley Habitat Plan

The Santa Clara Valley Habitat Plan (SCVHP) was implemented in 2013. Six local partners (the County of Santa Clara, Santa Clara Valley Transportation Authority; Santa Clara Valley Water District, and the Cities of San Jose, Gilroy, and Morgan Hill) and two wildlife agencies (the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service) prepared and adopted this multispecies habitat conservation plan, which primarily covers southern Santa Clara County, as well as the City of San Jose with the exception of the bayland areas. The SCVHP addresses conservation of listed species and species that are likely to become listed during the plan's 50-year permit term. The eighteen covered species include nine plants and nine animals, including the western burrowing owl and the California tiger salamander. In general, the SCVHP is a fee based program aimed at providing for the regional conservation of these species.

The Study Area is within the SCVHP permit area. Recreational facilities including parks are categorized as urban development and are a "Covered Activity" under the plan. The Depot Park and portions of the Hilltop and Little Llagas Creek Park properties are classified as Urban – Suburban Land Cover, but are not subject to any SCVHP land cover fees. Other portions of the Hilltop and Little Llagas Creek Park properties have a Mixed Oak Woodland and Forest Land Cover type and are subject to Fee Zone B (Agricultural and Valley Floor Land) fees. The City of Morgan Hill will be required to submit an application for SCVHP coverage, and pay the appropriate fees based upon the area of park development within Fee Zone B.

4.0 Methods and Limitations

The findings in this report are based upon a reconnaissance-level survey of the Study Area conducted by Judy Bendix of Mosaic Associates on June 22, 2016. The Study Area was surveyed on foot during daylight hours. Plant and animal species detected during the site visit

were noted and are described below. Surrounding lands were scanned with binoculars but were not physically surveyed.

Additional sources of information used for the analysis included the Natural Resource Conservation Service's Soil Survey of Eastern Santa Clara Area, California (2014), the California Natural Diversity Data Base (CDFW 2016), special-status species lists prepared by CDFW and the USFWS, the SCVHP, and manuals and references related to plants and animals found in and around Santa Clara County.

The assessment of impacts on biological resources in the Study Area are based on development of the site as featured on Figures 2-4.

5.0 Existing Conditions

5.1 Setting & Habitats

Depot Street Park

Depot Street Park (APN 726-13-047) is located between Depot Street and the railroad tracks between E. 3rd and E. 4th Streets in downtown Morgan Hill, west of Highway 101. The property is fully developed with a paved parking lot and a gravel swale between the sidewalk abutting Depot Street. The parking lot is in active use by commuters using the light rail transit system. The railroad tracks are located to the east, with commercial and residential development surrounding the site. Ornamental trees in planters line the sidewalk; otherwise the site is devoid of vegetation. Ruderal vegetation and a small coast live oak (*Quercus agrifolia*) are present east of the park property. The property is essentially flat. The Depot Street Park property is fully developed with urban amenities. No wetlands, streams or riparian habitat are present on this property. No ground squirrels or burrows are present.

Little Llagas Creek Park

The proposed Little Llagas Creek Park (APNs 767-07-065, 767-07-042, 767-08-003) is an irregularly shaped property that is situated west of Monterey Road between W. 4th Street and W. 2nd Street in downtown Morgan Hill, and west of the Depot Street Park site. Surrounding land uses include commercial and residential development. The park property consists of undeveloped and low-lying land bordering Little Llagas Creek and to the west, the steeply inclined and paved W. 3rd Street and Del Monte Avenue. The vegetation within the park property consist of mixed oak woodland. Little Llagas Creek has steeply incised banks that are four to five feet deep. The creek was dry at the time of the site visit. South of W. 2nd Street, the creek banks support ruderal, non-native plants including wild oats (*Avena fatua*), yellow star thistle (*Centauria solstitialis*) and curly dock (*Rumex crispus*), while elsewhere, dense riparian vegetation lines the banks of the creek. Vegetation along the creek include non-native species such as Himalaya blackberry (*Rubus armeniacus*), fennel (*Foeniculum vulgare*), as well as native species tall flatsedge (*Cyperus eragrostis*), blue elderberry (*Sambuccus mexicana*), arroyo willow (*Salix lasiolepis*) and Oregon ash (*Fraxinus latifolia*). A single vehicular bridge crosses the creek. West of the creek is an open field that is surrounded by large mature trees including natives valley oak (*Quercus lobata*) coast live oak, California bay (*Umbellularia californica*), and non-native ornamental trees. South of the bridge and east of the creek is a small, level gravel-covered area

that is also surrounded by trees including the native coast live oak, and non-natives black acacia (*Robinia pseudoacacia*) and glossy privet (*Ligustrum lucidum*). The creek banks south of the bridge support non-natives Italian thistle (*Carduus pycnocephala*), Himalaya blackberry, and wild oat, as well as native species including common snowberry (*Symphoricarpos albus*) and tall flatsedge.

Black-tailed deer (*Odocoileus hemionus*) were observed during the site visit, as well as avian species including American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), northern flicker (*Colaptes auratus*), mourning dove (*Zenaida macroura*), oak titmouse (*Baeolophus inornatus*) and chestnut backed chickadee (*Poecile rufescens*). The trees within the proposed park, including the glossy privet trees south of W. 3rd Street scheduled for removal provide suitable nesting habitat for these and other birds common to the region. The cavities and bark fissures in the large valley oak west of the creek also provides suitable roosting habitat for native bats, including pallid bat (*Antrozous pallidus*) and Yuma myotis (*Myotis yumanensis*). No ground squirrels or burrows are present.

Hilltop Trail and Park

Hilltop Trail and Park (APNs 767-08-008 and 767-08-011) consists of a steeply sloped "L" shaped site that extends from W. Dunne Avenue upslope to a hilltop and slopes on which a large water tank is situated. The Little Llagas Creek park property abuts the Hilltop park site to the west. Residential and commercial development surround the property, with undeveloped land to the west. The water tank, a cell phone tower, an electrical utility building and the steeply inclined access road from W. 3rd Street are the only constructed improvements on the property. An established and mature canopy of mixed oak woodland is present across most of the site. Coast live oak is the dominant tree, with a smaller number of valley oak and blue oak (*Quercus douglasii*). Eucalyptus (*Eucalyptus* sp.), coast redwood (*Sequoia sempervirens*) and almond (*Prunus dulcis*) are present near the water tank. A number of dead or dying coast live oak were observed, which may be a result of sudden oak death syndrome caused by the plant pathogen *Phytophthora ramorum*. Small patches of scrub vegetation, including coyote bush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), poison oak (*Toxicodendron diversilobum*) and scattered blue elderberry are present on the slopes below the water tank. Understory vegetation along the access road and in the woodland includes non-natives Italian thistle, wild oat, hedge parsley (*Torilis arvensis*), yellow star thistle, milk thistle (*Silybum marianum*), wild radish (*Raphanus sativa*), foxtail barley (*Hordeum murinum*), and Italian ryegrass (*Lolium multiflorum*), as well as the native Canadian horseweed (*Conyza canadensis*) and soap plant (*Chlorogalum pomeridianum*).

No wetlands, streams or riparian habitat are present on this property. No ground squirrels or burrows are present.

Black-tailed deer, American crow, mourning dove, oak titmouse, chestnut backed chickadee, house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*) and scrub jay (*Aphelocoma californica*) were observed during the site visit. The trees within the proposed park including the three oaks scheduled for removal provide suitable nesting habitat for these and other birds common to the region. The cavities and bark fissures in the large valley oak west of the water

tank that is scheduled for removal provides suitable roosting habitat for native bats, including pallid bat and Yuma myotis.

5.2 Soils

Soils in the Study Area consist of San Ysidro loam (0-2% slopes) and Keefers clay loam (0-2% slopes).

6.0 Special-status Species and Natural Communities

A search of published accounts for special-status plant and animal species using the CNDDB Rarefind 5 application (CDFW 2016) was conducted for the USGS 7.5" quadrangles surrounding the project site, including Morgan Hill, San Jose East, Gilroy, Lick Observatory, Loma Prieta, Isabel Valley, Mt. Madonna, Mt. Sizer and Santa Teresa Hills. Figure 5 shows the locations of special-status species within 3.1 miles of the Study Area. Of the 74 special status plant and animal species recorded from the region, only three have any potential to occur within the Study Area. Special-status species with potential to occur on the Study Area include western bumblebee (*Bombus occidentalis*), pallid bat and Yuma myotis. Additional information on those species is provided below. Given the absence of suitable habitat within the Study Area, the other 71 special-status species known from the region are not expected to be present within the Study Area and are therefore not discussed further in this report.

6.1 Special-Status Plants

No special-status plants are likely to occur within the Study Area. Suitable habitat for special-status plants is absent due to past disturbance and habitat conversion in Depot Street Park and Hilltop Park, and the absence throughout the Study Area of serpentine soils, wetlands or chaparral in which rare plants known from the region occur.

6.2 Special-Status Wildlife

Special-status wildlife with potential to be present in the Study Area include: western bumblebee, pallid bat and Yuma myotis. Habitat for other special-status wildlife known from the region surrounding the project site is absent due to habitat conversion in Depot Street and Hilltop Park, and the absence of suitable habitat such as wetlands, vernal pools, ground squirrel burrows, ponds or other habitat parameters that meet the requirements of special-status species known from the region.

Western Bumblebee

Western bumblebee (U.S. Fish and Wildlife Service Sensitive, XERCES Imperiled), once common and widespread has declined from central California to southern British Columbia. The reason or reasons for the decline remain unsolved, but a likely cause is thought to be due to a fungal pathogen. As generalist foragers, they do not depend on any one flower type (Xerces

Society 2016). In addition to wild populations, the western bumblebee was once raised commercially in large numbers for use in pollinating crops in greenhouses.

The CNDDB reports a 1940 record of western bumblebee in the general vicinity of the Study Area. Given the presence of many native and non-native flowering plants in Little Llagas Creek and Hilltop Parks and the 1940 record, this species is considered to be present within those portion of the Study Area. Due to the past development of the parking lot, western bumblebee is unlikely to occupy the Depot Street Park site.

Pallid Bat and Yuma Myotis

Pallid bat (California Species of Special Concern) is found in grasslands, chaparral, woodlands, and forests of California. It is most common in open, dry habitats with rocky areas for roosting. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating Ponderosa pine and valley oak bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings. They forage over open shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards. Roosts must protect bats from high temperatures. Pallid bats are very sensitive to disturbance of roosting sites.

Yuma myotis (Western Bat Working Group Low Priority) occurs in a variety of low elevation habitats including riparian, arid scrublands and deserts, and forests. Day roosts are found in buildings, trees, mines, caves, bridges and rock crevices. Night roots are usually associated with buildings, bridges or other man-made structures (Philpott 1996).

Although no evidence of bat occupancy in the trees within the Study Area was observed during the site visit, the large trees on site provide suitable habitat for pallid bat and Yuma myotis roosting.

7.0 POTENTIAL IMPACTS AND MITIGATION MEASURES

Impacts of the Project and suggested avoidance, minimization and mitigation measures are listed below. Impacts would be rendered less-than-significant with implementation of the mitigation measures described below.

7.1 Special-Status Animals and Native Wildlife

Western Bumblebee

Potential Impacts

Development of the project will result in limited site disturbance in both Little Llagas Creek and Hilltop Park and both park sites will continue to provide foraging habitat for this species at essentially the same locations and extent as is currently present. Therefore, the project is not expected to have a significant impact on the species. No mitigation is required.

Pallid Bat and Yuma Myotis

Potential Impact 1.
Pallid bat and Yuma myotis have potential to roost or hibernate in trees within the Little Llagas Creek and Hilltop Park sites. Tree removal and pruning could result in a take of roosting bats, including a maternity colony, if present. Take of a maternity colony or roosting special-status bats would be considered a significant impact. This impact would be significant, but implementation of the mitigation measures described below would reduce this impact to a less than significant level.

Mitigation Measure 1(a). A qualified biologist, knowledgeable about local bat species and experienced with bat survey methods, shall inspect all trees that could support bats in the project area prior to the start of site disturbance (e.g. demolition, vegetation removal and earthwork). Surveys should be conducted during appropriate weather to detect bats (not in high winds or during heavy rain events). One daytime and up to two nighttime surveys (starting at least 1 hour prior to dusk) should be conducted to determine if bats are present. If bats are detected, additional surveys utilizing acoustic monitoring or other methods may be necessary depending on the recommendations of the bat biologist.

Mitigation Measure 1(b). Preconstruction surveys for bats should be conducted within two weeks prior to the removal of any trees or structures that are deemed to have potential bat roosting habitat. If bats are detected on-site and would be impacted by the project, then appropriate mitigation measures would be developed with approval from CDFW. Mitigation measures would include one or more of the following methods: using one-way doors to exclude non-breeding bats, opening up roof areas of structures to allow airflow that would deter bats from roosting, and taking individual trees down in sections to encourage bats to relocate to another roost site. Typically this work is conducted in the evening when bats are more active, and this work should be conducted under the guidance of an experienced bat biologist.

Mitigation Measure 1(c). Mitigation for impacts to a maternity bat roost, if detected, would be determined through consultation with CDFW, and may include construction of structures that provide suitable bat roosting habitat (i.e. bat houses, bat condos) for the particular species impacted.

Nesting Raptors and Other Migratory Birds

Potential Impact 2.
Trees within the Study Area provide suitable nesting habitat for numerous migratory birds including raptors. Tree removal or construction activities in close proximity to active nests may cause the failure or abandonment of active nests.

Mitigation Measure 2.
Pre-construction surveys for nesting birds shall be conducted by a qualified biologist not more than two weeks prior to site disturbance during the breeding season (February 1

through August 31). If site disturbance commences outside the nesting season, pre-construction surveys for nesting birds are not required. If active nests of raptors and other migratory birds are not detected within approximately 300 feet of the project site, no further mitigation is required. If nesting raptors or other migratory birds are detected on or adjacent to the site during the survey, a suitable construction-free buffer should be established around all active nests. The dimensions of the buffer (generally 50 feet for passerines and 300 feet for raptors) should be determined at that time and may vary depending on location and species. The buffer areas should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

7.2 Impacts to Riparian Trees and Waters of the U.S. and State

Potential Impact 3.
Little Llagas Creek, which meets the criteria as a water of the U.S. and State is present within the Little Llagas Creek Park site. Development of the Little Llagas Creek Park will require the removal and replacement of an existing vehicular bridge, and construction of a new pedestrian bridge across the creek. No riparian tree removal would be required for bridge construction activities. Bridge construction activities may require the discharge of fill and excavation in waters of the U.S. and/or State, and have the potential to adversely affect water quality in Little Llagas Creek.

An unpaved, mulched surface trail and two benches will be constructed above the top of bank and beneath the canopy of existing trees in the Streamside Protection Area, but no earthwork below top of bank or riparian tree removal will be required. Because these amenities do not require earthwork below top of bank or the removal of riparian vegetation, the habitat values in the Streamside Protection zone would not be diminished and the effect would be considered less than significant.

Authorization for the discharge of fill into waters of the U.S. and state may be required under Sections 401 (RWQCB) and 404 of the Clean Water Act (USACE), and Section 1600 of the California Fish and Wildlife Code (CDFW).

The discharge of fill and excavation in waters of the U.S. and State for bridge construction activities would be a potentially significant impact, but implementation of the mitigation measures below would reduce this impact to a less than significant level.

Mitigation Measure 3(a). The fill and excavation of waters of the U.S. and State will be avoided and minimized to the extent feasible. The new bridges will span the creek to avoid the permanent discharge of fill in waters of the U.S. and State. If temporary discharges of fill occur during construction, they will be removed and the creek banks and channel will be restored to pre-construction conditions. Authorization for the fill and excavation of waters of the U.S. and state shall be obtained by the City of Morgan Hill prior to the start of construction.

Mitigation Measure 3(b). Adverse impacts to water quality shall be avoided and minimized by implementing the following measures:

- Prior to the start of site disturbance activities, construction barrier fencing and silt fencing shall be installed at the limit of construction activity along the creek to prevent the inadvertent discharge of sediment and construction materials into the creek. Any debris that is inadvertently deposited into the creek during construction shall be removed in a manner that minimizes disturbance.
- All construction within jurisdictional features shall be conducted consistent with permits issued by the Corps, RWQCB and CDFW. Construction activities within these features shall be completed promptly to minimize their duration and resultant impacts.
- Contractors shall be required to implement a Storm Water Pollution Prevention Plan (SWPPP) that describes Best Management Practices including the conduct of all work according to site-specific construction plans that minimize the potential for sediment input to the aquatic system, avoiding impacts to areas outside the staked and fenced limits of construction, covering bare areas prior to storm events and protecting disturbed areas with approved erosion control materials.

8.0 References

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Photo 1. Depot Street Park Site

Photo 2. West side of Little Llagas Creek Park site, with W. 2nd Street in background.

Photo 3. Open field at center of Little Llagas Creek Park. Large valley oak in background.

Photo 4. Little Llagas Creek and riparian trees.

Photo 5. Bridge over Little Llagas Creek and W. 3rd Street.

Photo 6. Oak woodland and ruderal vegetation in Hilltop Park.

Photo 7. Water tank, cell phone and electrical utilities at the top of Hilltop Park.